

REGION: 04  
STATE : AL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 7  
RUN DATE: 07/06/87  
RUN TIME: 08:34:40

M.2 - SITE MAINTENANCE FORM

EPA ID : ALD980559470	* ACTION: _	*
SITE NAME: WALTER JIM RESOURCES FLAT TOP NEBO MINE SOURCE: N	* _____	*
STREET : OFF US 78 CONG DIST: 06	* _____	*
CITY : GRAYSVILLE ZIP: 35073	* _____	*
CNTY NAME: JEFFERSON CNTY CODE : 073	* _____	*
LATITUDE : 33/37/36.0 LONGITUDE : 086/58/06.0	* ____/____/____.	*
LL-SOURCE: R LL-ACCURACY:	* _	*
SMSA : 1000 HYDRO UNIT: 03160111	* _____	*
INVENTORY IND: Y REMEDIAL IND: Y REMOVAL IND: N FED FAC IND: N	* _ _ _ _	*
NPL IND: N NPL LISTING DATE: NPL DELISTING DATE:	* _ _ _ _	*
SITE/SPILL IDS:	* _ _ _ _	*
RPM NAME: RPM PHONE: - -	* _____	*
SITE CLASSIFICATION: SITE APPROACH:	* _	*
DIOXIN TIER: REG FLD1: REG FLD2:	* _ _ _ _	*
RESP TERM: PENDING ( ) NO FURTHER ACTION ( )	* PENDING ( _ ) NO FURTHER ACTION ( _ )	*
ENF DISP: NO VIABLE RESP PARTY ( ) VOLUNTARY RESPONSE ( )	* _ _	*
ENFORCED RESPONSE ( ) COST RECOVERY ( )	* _ _	*
SITE DESCRIPTION:	* _____	*
	* _____	*
	* _____	*
	* _____	*

25136

REGION: 04  
STATE : AL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

AGE: 8  
RUN DATE: 07/06/87  
RUN TIME: 08:34:40

M.2 - PROGRAM MAINTENANCE FORM

SITE: WALTER JIM RESOURCES FLAT TOP NEBO MINE

EPA ID: ALD980559470 PROGRAM CODE: H01 PROGRAM TYPE:

PROGRAM QUALIFIER: ALIAS LINK :

PROGRAM NAME: SITE EVALUATION

DESCRIPTION:

\* ACTION: \_

\*

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REGION: 04  
STATE : AL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 9  
RUN DATE: 07/06/87  
RUN TIME: 08:34:40

M.2 - EVENT MAINTENANCE FORM

\* ACTION: \_

SITE: WALTER JIM RESOURCES FLAT TOP NEBO MINE  
PROGRAM: SITE EVALUATION

EPA ID: ALD980559470 PROGRAM CODE: H01 EVENT TYPE: DS1

FMS CODE: EVENT QUALIFIER : EVENT LEAD: E

EVENT NAME: DISCOVERY STATUS:

DESCRIPTION:

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

ORIGINAL	CURRENT	ACTUAL
START:	START:	START:
COMP :	COMP :	COMP : 07/01/81

\* \_/\_/\_/\_ \_/\_/\_/\_ \_/\_/\_/\_ \*

\* \_/\_/\_/\_ \_/\_/\_/\_ \_/\_/\_/\_ \*

HQ COMMENT:

\* \_ \_ \_ \_ \_ \*

RG COMMENT:

\* \_ \_ \_ \_ \_ \*

COOP AGR # AMENDMENT # STATUS STATE %

0

\* \_ \_ \_ \_ \_ \*

REGION: 04  
STATE : AL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 10  
RUN DATE: 07/06/87  
RUN TIME: 08:34:40

M.2 - EVENT MAINTENANCE FORM

\* ACTION: \_

SITE: WALTER JIM RESOURCES FLAT TOP NEBO MINE  
PROGRAM: SITE EVALUATION

EPA ID: ALD980559470 PROGRAM CODE: H01 EVENT TYPE: PA1

FMS CODE: EVENT QUALIFIER : EVENT LEAD: S

EVENT NAME: PRELIMINARY ASSESSMENT STATUS:

DESCRIPTION:

\* \_ \*  
\* \_ \*  
\* \_ \*  
\* \_ \*

ORIGINAL	CURRENT	ACTUAL
START:	START:	START: 10/01/84
COMP :	COMP :	COMP : 11/01/84

\* \_/\_/\_ \*  
\* \_/\_/\_ \*  
\* \_/\_/\_ \*

HQ COMMENT:

\* \_ \*  
\* \_ \*

RG COMMENT:

COOP AGR #	AMENDMENT #	STATUS	STATE %
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0

\* \_ \*  
\* \_ \*

REGION: 04  
STATE : AL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 11  
RUN DATE: 07/06/87  
RUN TIME: 08:34:40

M.2 - EVENT MAINTENANCE FORM

\* ACTION: \_

SITE: WALTER JIM RESOURCES FLAT TOP NEBO MINE  
PROGRAM: SITE EVALUATION

EPA ID: ALD980559470 PROGRAM CODE: H01 EVENT TYPE: SII

FMS CODE: EVENT QUALIFIER : EVENT LEAD: S

EVENT NAME: SITE INSPECTION STATUS:

DESCRIPTION:

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

ORIGINAL	CURRENT	ACTUAL
START:	START:	START: 04/22/85
COMP :	COMP :	COMP : 04/22/85

\* \_/\_/\_/\_ \_/\_/\_/\_ \_/\_/\_/\_ \*

\* \_/\_/\_/\_ \_/\_/\_/\_ \_/\_/\_/\_ \*

HQ COMMENT:

\* \_ \_ \_ \_ \_ \*

\* \_ \_ \_ \_ \_ \*

RG COMMENT:

COOP AGR #	AMENDMENT #	STATUS	STATE %
			0

\* \_ \_ \_ \_ \_ \*

REGION: 04  
STATE : AL

U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF EMERGENCY AND REMEDIAL RESPONSE  
C E R C L I S V 1.2

PAGE: 12  
RUN DATE: 07/06/87  
RUN TIME: 08:34:40

M.2 - COMMENT MAINTENANCE FORM

SITE: WALTER JIM RESOURCES FLAT TOP NEBO MINE

EPA ID: ALD980559470

COM  
NO

COMMENT

ACTION

001 DISCHARGES TO LOCUST FORK OF BLACK  
WARRIOR RIVER, FIVE MILE CREEK AND  
002 COAL CREEK.

*	—	_____	*
*		_____	*
*	—	_____	*
*		_____	*



POTENTIAL HAZARDOUS WASTE SITE  
TENTATIVE DISPOSITION

REGION

SITE NUMBER

IV

ALD980559470

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW, Washington, DC 20460.

## I. SITE IDENTIFICATION

A. SITE NAME

Jim Walters Resources / Flat Top Nebo Mine

B. STREET

Route 1

C. CITY

Graysville (Jefferson Co.)

D. STATE

AL

E. ZIP CODE

35444

## II. TENTATIVE DISPOSITION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION

ACTION AGENCY

MARK 'X'

EPA

STATE

LOCAL

PRIVATE

A. NO ACTION NEEDED -- NO HAZARD

B. INVESTIGATIVE ACTION(S) NEEDED (If yes, complete Section III.)

C. REMEDIAL ACTION NEEDED (If yes, complete Section IV.)

D. ENFORCEMENT ACTION NEEDED (If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)

E. RATIONALE FOR DISPOSITION

Mine tailings & overburden, possible solvents.  
No solvents were found during SI. Drinking water is from distant sources (>10mi.).

F. INDICATE THE ESTIMATED DATE OF FINAL DISPOSITION (mo., day, &amp; yr.)

G. IF A CASE DEVELOPMENT PLAN IS NECESSARY, INDICATE THE ESTIMATED DATE ON WHICH THE PLAN WILL BE DEVELOPED (mo., day, &amp; yr.)

H. PREPARER INFORMATION

1. NAME

Elizabeth M Shaver

2. TELEPHONE NUMBER

(404) 881-2234

3. DATE (mo., day, &amp; yr.)

6-9-85

## III. INVESTIGATIVE ACTIVITY NEEDED

A. IDENTIFY ADDITIONAL INFORMATION NEEDED TO ACHIEVE A FINAL DISPOSITION.

Very low priority for further investigation

B. PROPOSED INVESTIGATIVE ACTIVITY (Detailed Information)

1. METHOD FOR OBTAINING NEEDED ADDITIONAL INFO.	2. SCHEDULED DATE OF ACTION (mo., day, & yr.)	3. TO BE PERFORMED BY (EPA, Contractor, State, etc.)	4. ESTIMATED MANHOURS	5. REMARKS
A. TYPE OF SITE INSPECTION				
(1)				
(2)				
(3)				
B. TYPE OF MONITORING				
(1)				
(2)				
C. TYPE OF SAMPLING				
(1)				
(2)				

### III. INVESTIGATIVE ACTIVITIES NEEDED and PART B - PROPOSED INVESTIGATIVE ACTIVITY (Continued)

d. TYPE OF LAB ANALYSIS					
(1)					
(2)					
e. OTHER (specify)					
(1)					
(2)					

C. ELABORATE ON ANY OF THE INFORMATION PROVIDED IN PART B (on front & above) AS NEEDED TO IDENTIFY ADDITIONAL INVESTIGATIVE WORK.

#### D. ESTIMATED MANHOURS BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES	1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES
a. EPA		b. STATE	
c. EPA CONTRACTOR		d. OTHER (specify)	

#### IV. REMEDIAL ACTIONS

A. SHORT TERM EMERGENCY STRATEGY (On Site & Off-Site): List all emergency actions needed to bring site under immediate control, e.g., restrict access, provide alternate water supply, etc. See instructions for a list of Key Words for each of the actions to be used in the space below.

1. ACTION	2. EST. START DATE (mo, day, & yr)	3. EST. END DATE (mo, day, & yr)	4. ACTION AGENCY (EPA, State, Private Party)	5. ESTIMATED COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED
				\$	
				\$	
				\$	
				\$	
				\$	
				\$	

B. LONG TERM STRATEGY (On Site & Off-Site): List all long term solutions, e.g., excavation, removal, ground water monitoring wells, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. EST. START DATE (mo, day, & yr)	3. EST. END DATE (mo, day, & yr)	4. ACTION AGENCY (EPA, State, Private Party)	5. ESTIMATED COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED
				\$	
				\$	
				\$	
				\$	
				\$	
				\$	

#### C. ESTIMATED MANHOURS AND COST BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES	1. ACTION AGENCY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES
a. EPA			b. STATE		
c. PRIVATE PARTIES			d. OTHER (specify)		



2. PROJECT MANAGEMENT SUMMARY

Site Name: JIM WALTERS RESOURCES - FLAT TOP NEBO MINE  
Site Number: ALD980559470  
Owner: JIM WALTER RESOURCES  
Operator: JIM WALTER RESOURCES  
Site Status: ☐ Active ☒ Inactive ☐ Unknown  
Priority: ☐ High ☐ Medium ☐ Low ☒ None

3. FINAL DISPOSITION

I. EPS Final Review - Date: 4/5/85  
Comments: \_\_\_\_\_

Follow Up Required ☐ Yes ☒ No

II. ADEM Review - Date: 4/16/85 SCM  
Comments: \_\_\_\_\_

Follow-up Action Required ☐ Yes ☒ No

III. Final Disposition:  
Review & revise Date: \_\_\_\_\_  
Edited & correct Date: \_\_\_\_\_  
Transmitted Date: \_\_\_\_\_  
File close-out Date: \_\_\_\_\_  
Initiate site inspection Date: \_\_\_\_\_

4. ADDITIONAL COMMENTS (ONGOING & FINAL)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RCRA 3012 SITE INSPECTION REPORT

FOR

JIM WALTER RESOURCES/FLAT TOP NEBO MINE  
ALD9805594 70  
GRAYSVILLE, ALABAMA  
SITE INSPECTION  
NOVEMBER 7, 1984

Presented to:

Alabama Department of Environmental Management  
Montgomery, Alabama

Presented by:

Environmental Protection Systems, Inc.  
Jackson, Mississippi  
Pensacola, Florida  
Mobile, Alabama

Project No. 1.84.174.01  
April, 1985

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## 1.0 EXECUTIVE SUMMARY

The Flat Top Nebo Mine, presently owned by Jim Walter Resources of Brookwood, Alabama, has been used as a coal mine since approximately the 1890's. This mine is located in northwest Jefferson County approximately 5 miles northwest of Graysville, Alabama, and is surrounded on three sides by Locust Fork River. This mine is presently idle, but runoff is still regulated by NPDES permit. CERCLA notification was submitted for over 55 gallons of solvents/oil residues in cans buried in the mine overburden. Further investigation revealed that this notification was for the empty cans that had a possible film or residue remaining on the interior. Several impoundments are present to control surface drainage and runoff for pretreatment prior to discharge. One of these is below the coal washer which contains primarily coal fines and a small amount of water. A second one in the western site limits controls surface drainage and runoff through the rest of the site including the waste piles of mining overburden. Sediment and water samples were obtained from these two areas and tested for acid extractable and base/neutral organics, EP Toxic and total metals, cyanide and volatile organics. No organic compounds were detected. Trace heavy metals, specifically arsenic and lead, were present in small amounts in some samples as well as low levels of cyanide. Since the mining overburden is excluded from RCRA regulation at the present time and the runoff is regulated by NPDES permit, and no organic compounds were found, the recommendation for this site is no further action at this time.

## 2.0 BACKGROUND

### 2.1 Location

The Jim Walter Resources/Flat Top Nebo Mine (ERRIS listing ALD980559470) is located on Route 1 in Graysville, Alabama 35444, in Jefferson County. Latitude is 33°40'00", longitude 087°01'23". State and local locations maps for the site are in Exhibit 2.1. The site is located approximately 5 miles northwest of Graysville on Flat Top Mountain and is surrounded on three sides by a bend in Locust Fork Creek.

### 2.2 Site Layout

The site is an inactive underground coal mine. Facilities include an office, maintenance shops, coal washer, and railcar loading facilities. Several impoundments are used to control surface drainage and runoff. One impoundment is near the coal washer and another impoundment is located approximately 1/2 mile to the southwest. Waste piles of mining overburden are evident throughout the site. A site layout drawing is attached in Exhibit 2.2.

### 2.3 Ownership History

The current owner and most recent operator of the site is Jim Walter Resources, Inc., Mining Division, Highway 216, P. O. Box 113 Brookwood, Alabama 35444. The mine is presently idle. Past owners and operators of the site were not verified, but according to information received from Jim Walter Resources, the mine has been operated since before 1900.

#### 2.4 Site Use History

This site is an underground coal mine first operated before 1900 and presently idle. In 1981, a CERCLA 103C notification was submitted for the potential presence of over 55 gallons of solvents and oils in the form of residues in empty cans and spillage. Empty cans were said to be buried in the mining overburden waste pile. All other mining overburden is excluded from RCRA solid waste regulation at this time.

#### 2.5 Permit and Regulatory History

Although this mine is presently idle, all surface runoff is still regulated by NPDES permit. Several outfalls exist for several surface impoundments. One surface impoundment received wastewater from the coal washer, the other surface impoundment is primarily to control site runoff through the mining overburden.

In 1981, a CERCLA 103C notification was submitted for the possible presence of over 55 gallons of solvents and oil residues in cans and possible spillage over the life of the mine. Empty cans are mixed in the waste pile with mining overburden. Surface drainage through this mining overburden is directed to a series of impoundments which are regulated by NPDES permit.

#### 2.6 Remedial Actions to Date

No remedial or emergency corrective actions are known for this site.

## 2.7 Summary Trip Report

EPS conducted a RCRA 3012 site inspection (with limited sample acquisition) of Jim Walter Resources/Flat Top Nebo Mine in Graysville, Alabama, Jefferson County at 8:30 a.m. on November 7, 1984. Mr. Winston McGill, Environmental Coordinator, was contacted prior to the visit and accompanied the EPS on the inspection. The EPS chief inspector was Mr. Paul J. Bierstine with assistance from Mr. Billy A. Warden of the Jackson, Mississippi, office. Sampling commenced at approximately 9:30 a.m. The first area looked at was a surface impoundment where pH adjustment for NPDES monitoring normally takes place. This impoundment receives discharge from surface mining overburden and former waste areas. Water samples were obtained for acid extractable and base/neutral organics, EP Toxic and total metals, cyanides, and VOA. Water temperature was 19°C with a pH of 4.2 standard units. Next a sediment composite was obtained from this impoundment with jars being obtained for organics, EP toxic and total metals, and cyanide. This surface impoundment is located on the western side of the property nearest Graysville Road and Locust Fork River. Next the team observed a combination waste pile and surface impoundment near the coal washer which is located near the main office. This area received mining overburden, waste coal fines, and coal washer water. Some of the solvent drums in the CERCLA notification may also have been disposed here. Again, a water grab sample was obtained for the same parameters as previously listed and a sediment composite was also obtained. Water temperature was 19°C and the pH in this impoundment was 3.1. The final sample (using clean sampling equipment) was obtained of natural soil for background parameters. This sample was taken near the NPDES outfall on the east side of the coal washer. The sample materials were taken from the top

6 inches of native soil below the organic layer for acid extractable and base/neutral organics, EP toxic and total metals, and cyanide.

All samples were preserved and prepared for transport to the EPS lab in Jackson, Mississippi. A short closing interview was conducted with Mr. McGill and we indicated that follow-up telephone interviews may be required to complete the inspection report.



### 3.0 ENVIRONMENTAL SETTING

#### 3.1 Topography

A copy of the topographic map covering the area around the mine is included in Exhibit 2.1. The site is located in the Warrior Basin District, Cumberland Plateau Section of the Appalachian Plateau Province. Warrior Basin is a submaturely-to-maturely dissected synclinal sandstone and shale plateau of moderate relief. Coal deposits are significant in the basin. Elevations near the Flat Top Nebo Mine vary from 300 feet above mean sea level along Locust Fork River to elevations around 400 feet near the coal washer on Flat Top. Flat Top Mountain is a knobby circular ridge remnant surrounded on the north, west and south sides, by a bend of Locust Fork River. Slopes vary from nearly level to moderately steep with all drainage being directly into Locust Fork River.

#### 3.2 Surface Waters

Several surface impoundments on-site regulate and control a significant amount of surface drainage from the site as a result of regulated coal-mining activities. Site drainage is north, west and south; running a short distance to the Locust Fork River which loops around 3 sides of the site. Locust Fork River is part of the Warrior-Tombigbee-Mobile River Basins. Locust Fork River is controlled by a series of locks and dams and does support barge traffic in this area.

#### 3.3 Geology and Soils

A copy of a geologic map on quadrangle base covering the vicinity of the site is included in Exhibit 3.3. Outcropping at the surface of the site is

a silty, loamy soil derived from the underlying Pottsville Formation. These soils are derived from interbedded sandstone, siltstones, and shales and generally less than 20 feet thick. These soils absorb only small quantities of water, due to the silty nature and generally steep slopes that facilitate rapid runoff. The Pottsville Formation and Warrior Basin consist of interbedded sandstone, siltstone, and shales that develop topographic features of moderate relief with some flat plateau remnants with deeply incised valleys and cliffs in several areas. The following description of the Pottsville formation was taken from Engineering Geology of Jefferson County, published by Geological Survey of Alabama in 1979.

"The Pottsville Formation in the Warrior Basin includes a basal conglomeritic sandstone that is composed of scattered rounded quartz pebbles in a fine-to-coarse-grained quartz sand matrix. The basal conglomeritic sandstone is thinbedded to massive, ranges from 100 to 500 feet in thickness, and is exposed on the cliffs along Rock and Sand mountains. Overlying the basal conglomeritic sandstone is approximately 600 feet of thin-to-medium-bedded shale containing thin-to-thick-bedded siltstone and sandstone and four thin coal beds. The sandstone and siltstone may occur in units as much as 40 feet thick.

Overlying the lower shale sequence is a shale and sandstone sequence containing several thin-to-thick-bedded coal seams. The lower half of this sequence contains primarily thin-bedded-to-massive sandstone and interbedded shale, coal, and siltstone. The upper half contains primarily thin-to-thick-bedded shale with interbeds of thin-to-thick-bedded

sandstone, coal, and thin-bedded siltstone. The total thickness of the Pottsville Formation in the Warrior Basin district of Jefferson County is approximately 2,800 feet".

### 3.4 Groundwater

Groundwater in the Pottsville Formation in the Warrior Basin District exists in the sandstone and residual soils and in openings along joints, faults, and bedding planes. Except where fractured, the coal, shale, and siltstone are relatively impermeable. They usually do not yield significant quantity of water to wells. The water table ranges from 10 to 50 feet below the surface. The quantities suitable for domestic needs generally occur at depths of less than 200 feet. Yields to most wells in the areas are less than 10 gallons per minute.

### 3.5 Climate and Meteorology

General Description: Humid, subtropical, mild winters, hot summers, precipitation during all months. Snowfall seldom; no average monthly temperatures below freezing. Seasonal average temperatures from 45°F to 78°F.

Precipitation: Mean annual precipitation 53.2 inches; mean annual evaporation 34.5 inches; mean annual net 18.8 inches. One year 24-hour rainfall approximately 3.5 inches. Maximum recorded 24-hour precipitation 8.8 inches; Mean annual snowfall 1.4 inches.

Wind Data: Prevailing wind direction north; mean wind speed 7.3 mph.

### 3.6 Land Use

The Flat Top Nebo Mine is located on the edge of the Warrior Coal Basin in northwest Jefferson County. This area is heavily engaged in both above and underground mining of coal which include mines in the active, inactive, and abandoned categories. Some areas have been stripped mined with resulting large waste piles of mining overburden. Scattered small communities dot the countryside. Rail service in the areas serving the coal mines is fairly extensive as well as barge traffic on the navigable waterways. A detailed land use map of the area which is colored-keyed at 1:250,000 scale is available in the Environmental Data Inventory, State of Alabama, 1980, published by the Corps of Engineers.

### 3.7 Population Distribution

Although Jefferson County has the highest population density of any county in Alabama, this area of Jefferson is sparsely inhabited, primarily along the main roads, due to the presence of many active and inactive coal mines. The closest large community is Graysville, which is approximately 5 miles southeast of the site. Several small scattered communities lie within 3 to 5 miles of the site both in Jefferson and Walker County which lies across the Locust Fork River. The closest residences to the site are approximately 1/4 mile away on the opposite side of Locust Fork River in Walker County and adjacent to the main highway.

### 3.8 Water Supply

Two community water systems bracket the site: the West Jefferson water system approximately 3 miles to the southwest, and Graysville water system approximately from 3 to 5 miles to the southeast. Both of these water

systems purchase water from Birmingham which utilizes the distant source of the Cahaba River which is over 12 miles away to the southeast. On-site water supply for coal washing activities most likely relies on surface water sources, notably Locust Fork River or underground mine dewatering sources. Jefferson County does have a separate industrial water supply from the Inland Reservoir, which is primarily used as cooling and process water for industrial use. Some large industrial users in Jefferson County have supplemental groundwater supplies in the form of large diameter on-site wells utilizing various aquifers. The closest of these is believed to be the Alabama Power Company, Miller Steam Plant, which approximately 3 miles south of the site.

### 3.9 Critical Environment/Endangered and Threatened Species

<u>Species Common Name</u>	<u>Range</u>	<u>Status</u>
Indiana Bat	Central Alabama	Endangered (Fed)
Gray Bat	Eastern 2/3 Alabama	Endangered (Fed)
Bald Eagle	Statewide	Endangered (Fed)
Golden Eagle	Statewide	Endangered (AL)
Red-cockaded Woodpecker	South of Tennessee River	Endangered (Fed)
Peregrine Falcon	Statewide	Endangered (Fed)
Osprey	Statewide	Endangered (AL)
Flattened Musk Turtle	Streams of Black Warrior River System	Threatened (AL)

(Reference: Environmental Data Inventory, State of Alabama, U.S. Army Corps of Engineers, Mobile District, 1981)

#### 4.0 WASTE TYPES AND QUANTITIES

##### 4.1 Waste Quantities

Unknown large waste quantities at the site are primarily mining overburden and coal fines from coal washing activities which are collected in several surface impoundments. A CERCLA notification for this site listed possible solvents in the waste piles; however, no solvents were detected in the samples obtained from these areas. The mining overburden, which is returned to the mining site, is excluded from RCRA regulation. All surface drainage and runoff from this site is regulated under NPDES permit for various outfalls.

##### 4.2 Waste Disposal Methods and Locations

Two primary areas of waste disposal are present and were sampled as shown in the site layout sketch in Exhibit 2.2. One impoundment controls runoff from the coal washer area in the main above ground processing area. The second impoundment controls the majority of surface runoff from the exposed mining activities and also regulates runoff from the mining overburden waste pile. Drainage from both of these areas constitutes 2 outfalls which are monitored under NPDES permit and are subject to surface mining regulations.

#### 4.3. Waste Types

No organic compounds or volatile organics were detected in the samples obtained. Low levels of some trace metals, notably arsenic and lead, were detected in some of the sediments obtained from these impoundments. Additionally cyanide was present in both water and sediment samples obtained. However, as noted above, this mining overburden is apparently excluded from RCRA regulation and the drainage from these materials is regulated by NPDES monitoring.

## 5.0 LABORATORY DATA

### 5.1 Summary

Laboratory results and QA/QC data are presented in the attached Exhibit 5.1 while approximate sample locations are shown on Exhibit 2.2. Sample numbers and descriptions are as noted below:

<u>Sample Number</u>	<u>Description</u>
NM-WA1-WP	Water sample from coal washer surface impoundment at main office near gate.
NM-SD1-WP	Coal washer impoundment sediments (primarily coal fines).
NM-SD2-WP	Duplicate split of NM-SD1-WP for QA/QC.
NM-SO1-AS	Natural soil sample for background near NPDES outfall on east side of coal washer.
NM-WA2-SI	Water sample from surface impoundment for drainage control and runoff on west side of plant.
NM-SD3-SI	Sediment sample from surface impoundment near NPDES west outfall.

### 5.2 Quality Assurance Review

All sample collection, sample preservation and chain-of-custody procedures used during this investigation were conducted in accordance with the standard operating procedures as specified in the Quality Control/Quality Assurance Plan for the Analytical and Environmental Division of Environmental Protection Systems, Inc., revised August 31, 1984. All laboratory analyses and quality assurance procedures used during this investigation were conducted in accordance with standard procedures and protocols as specified in the Quality Control/Quality Assurance Plan for the Analytical



and Environmental Division of Environmental Protection Systems, Inc., revised August 31, 1984, or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program. No deficiencies or suspect data were noted.

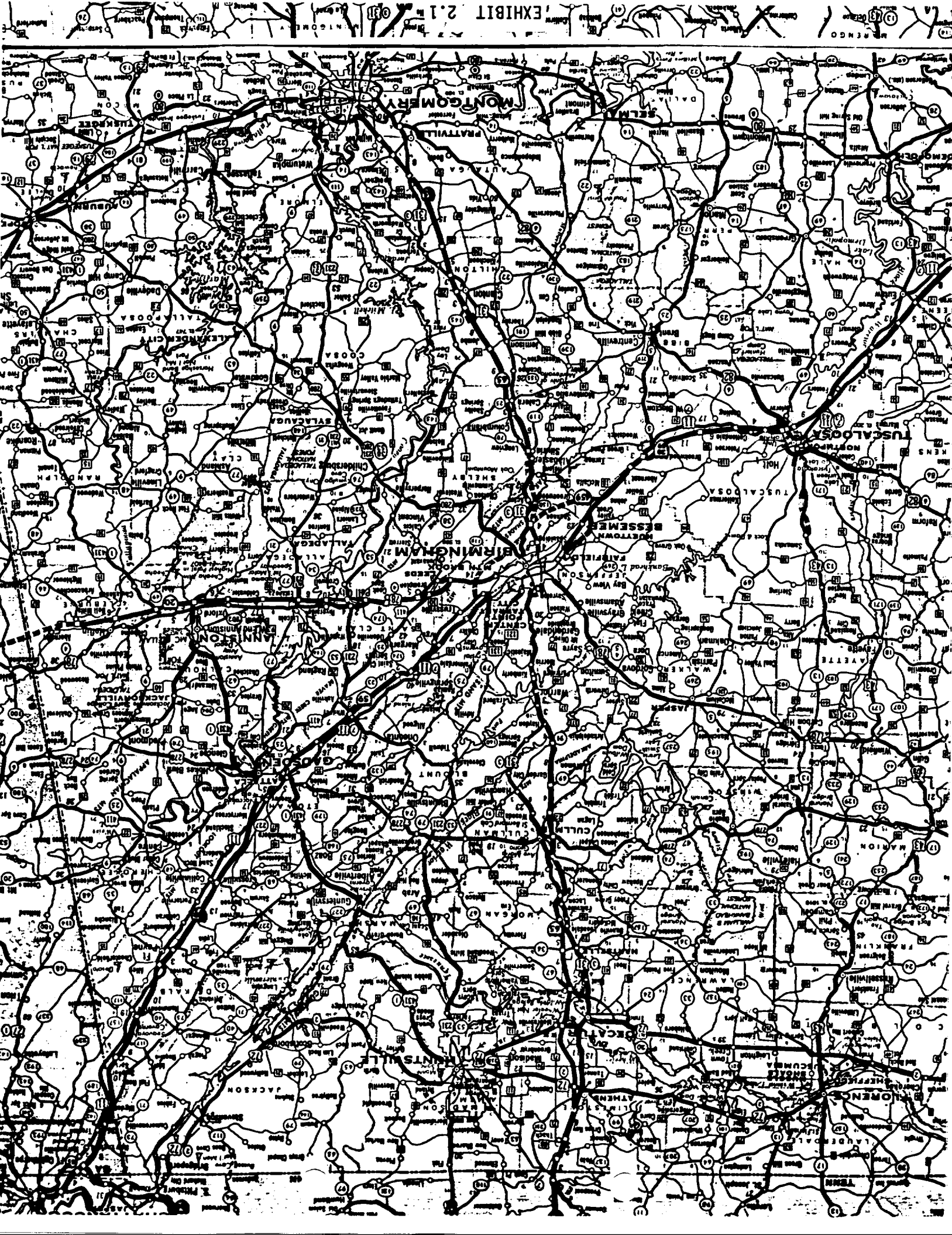
## 6.0 TOXICOLOGICAL/CHEMICAL CHARACTERISTICS

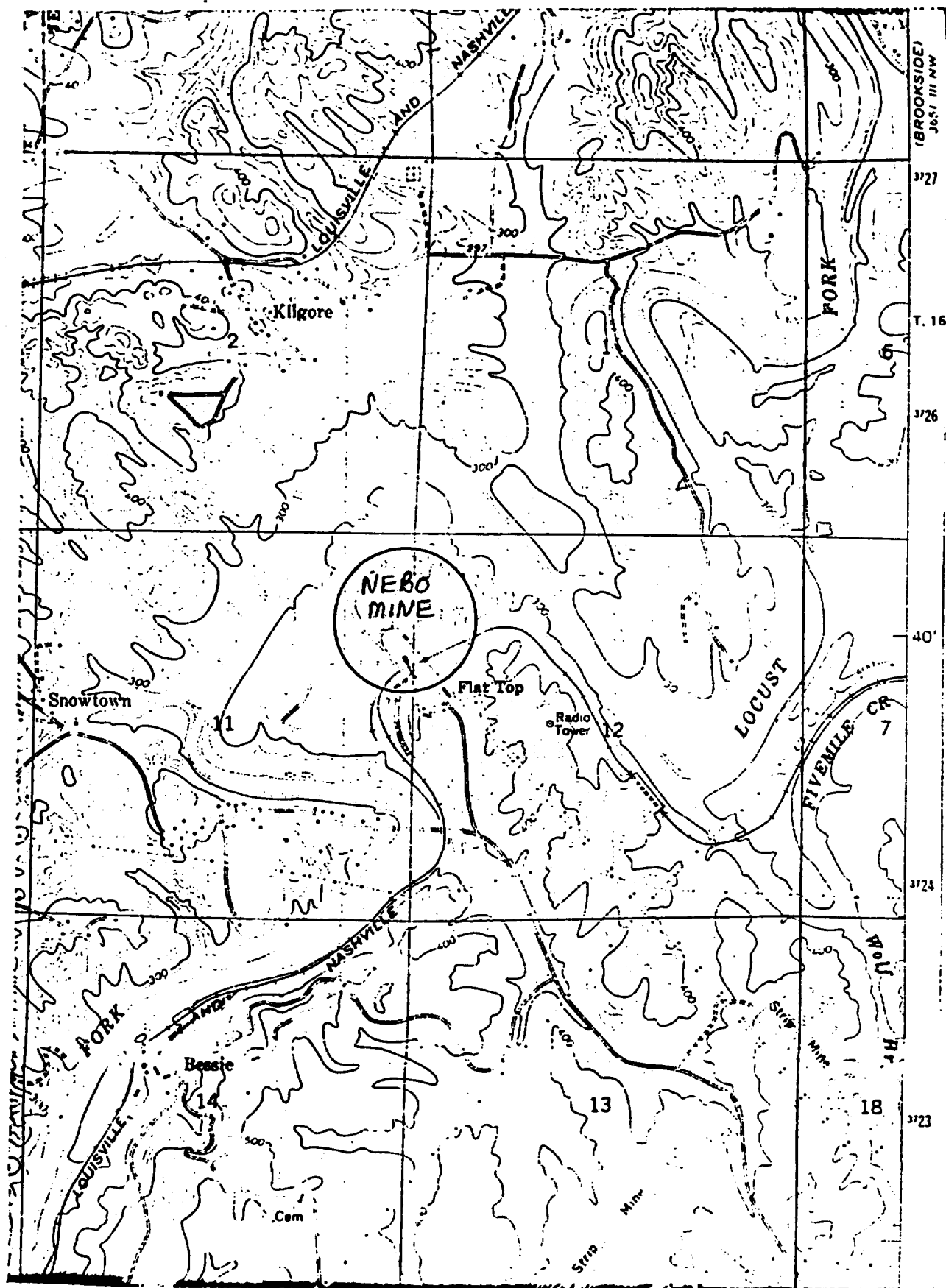
In general, arsenic, lead, and cyanide were reported in several samples above the detection limit. No organics were found in the samples obtained which were reported on the CERCLA 103C notification. Although mining overburden returned to the mine site is excluded from RCRA regulation, the SAX toxicity ratings for arsenic, lead, and cyanide are included in Exhibit 6.0.

## 7.0 CONCLUSIONS AND RECOMMENDATIONS

This inactive coal mine was investigated due to the submittal of a CERCLA 103C notification for small amounts of organics and solvents disposed in the waste piles at the mine over a period of years. The situation is probably typical of most coal mines in the area and this investigation was one of several coal mines visited to investigate this situation. No organic compounds above the detection limits were noted in any of the samples obtained. Trace amounts of heavy metals, as well as arsenic and cyanide, were found in the water and sediments such as is typical of most coal mining activities. The mining overburden generated as a result of coal mining and placed back on the mine site is excluded from RCRA regulation. However, this does not preclude potential regulation under CERCLA. For the above listed reasons and since surface runoff from the site is presently regulated by NPDES discharge permit, the recommendation for this site is no further action at this time.

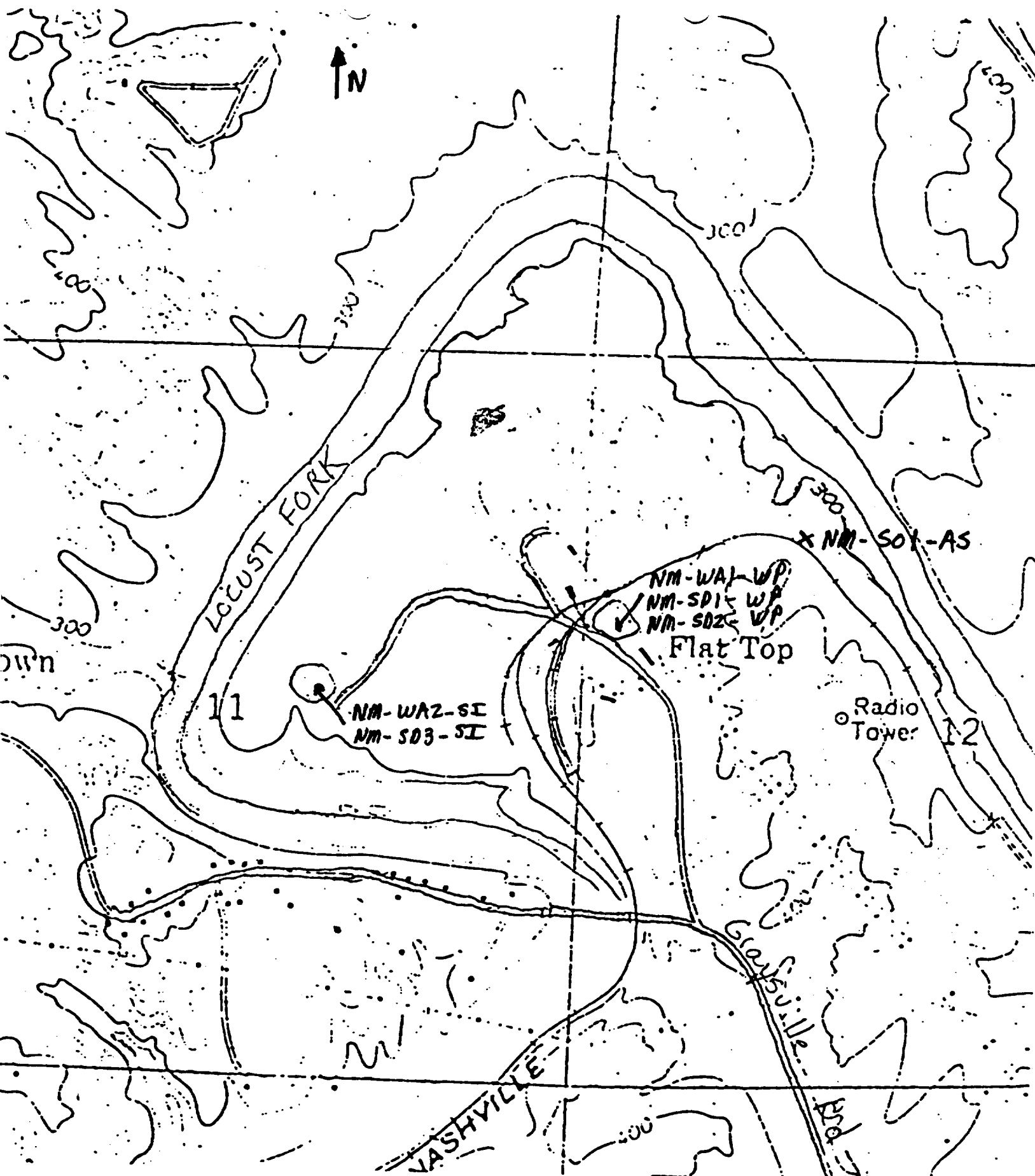
## EXHIBITS





U.S.G.S. 7½ MIN. SERIES  
Dora, ALABAMA





Site Sketch / Jim Walter Resources Flat Top Nebo Mine

- No scale -

Table 1.—Generalized geologic section of rocks exposed in Jefferson County, Alabama

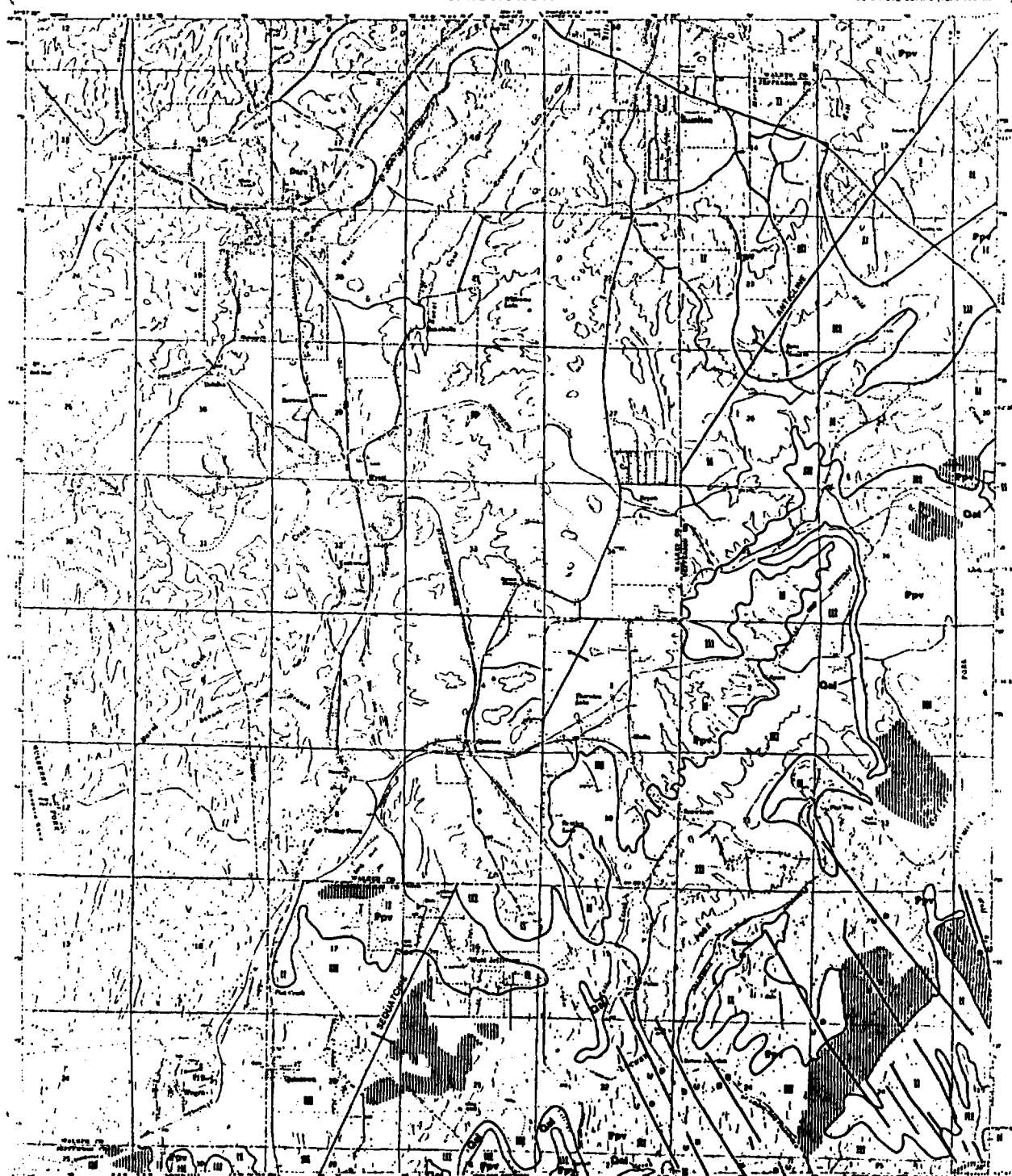
Era	System	Geologic unit				Exposed thickness (feet)		Lithology	
		Birmingham Valley district <sup>1</sup>		Coosa and Cahaba Ridge and Valley districts		Birmingham Valley district <sup>1,2</sup>	Coosa and Cahaba Ridge and Valley districts		
		NE	SW	NE	SW				
Cenozoic	Quaternary	Alluvial and lower terrace deposits		Alluvial and lower terrace deposits		0-30	0-30	Gravel, sand and silt, unconsolidated. Adjacent to the larger streams and rivers.	
		Higher terrace deposits		Higher terrace deposits		0-10	0-10	Sand and gravel, unconsolidated, containing well-rounded pebbles of chert and quartzite. Occur in the northeastern part of the county.	
Mesozoic	Cretaceous	Coker Formation of the Tuscaloosa Group		Absent		0-90		Sand with lenses of clay; gravel at the base. It occurs as outliers in the southern part of the county. Deposits of limestone occur locally where Coker overlies deeply weathered limestones.	
Paleozoic	Pennsylvanian	Pottsville Formation <sup>3</sup>		Pottsville Formation		2,800 <sup>3</sup>	5,100 <sup>3</sup>	Sandstone, siltstone and shale, interbedded with conglomerate, coal and underclay; orthoquartzite at the base and subgraywacke at the top. Shale, medium- to dark gray, silty; numerous coal beds and underclays.	
		Parkwood Formation		Parkwood Formation		0-1,200	1,400-2,400	Sandstone, light- to dark gray, thin- to medium bedded, with interbedded shale and siltstone.	
	Mississippian	Floyd Shale		Floyd Shale		800-800	1,000 <sup>3</sup>	Shale, clayey; dark gray to greenish-gray, fine; locally occurring beds of siltstone. In Birmingham and Cahaba Valleys the other Mississippian formations grade into Floyd Shale.	
		Bunger Limestone				0-150		Limestone, medium- to light-gray, medium-bedded, primarily bioclastic or oolitic; some shale. Absent in Cahaba Valley.	
		Hartselle Sandstone		Hartselle Sandstone		0-120	0-120	Sandstone, light-brown, well-sorted, fine- to medium-grained, medium- to very thin-bedded. Silty in Cahaba Valley.	
		Pride Mountain Formation		Pride Mountain Formation		100-350	100-350	Clay-shale, dark gray, fine; locally occurring thin siltstone, sandstone and basal oolitic limestone.	
		Tusculum Limestone		Absent		70-80		Limestone, medium-gray, crystalline, subdiagenetic, bioclastic, locally cherty.	
		Fort Payne Chert		Fort Payne Chert		90-200	90-200	Chert, grayish-orange, thin- to medium-bedded; minor limestone units and shale partings.	
		Maury Formation		Maury Formation		1-3	1-3	Shale, grayish-red to greenish-gray, finely laminated.	
		Chattanooga Shale		Chattanooga Shale		0-20	0-20	Shale, brownish-black, highly fissile. Generally absent.	
	Devonian	Frog Mountain Sandstone		Frog Mountain Sandstone		0-30	12-14	Sandstone, light-gray to tan, medium- to thick-bedded, contains pebble conglomerate.	
		Red Mountain Formation		Red Mountain Formation		200-500	0-350	Sandstone, dark reddish-brown to olive-gray, interbedded with siltstone, shale, thin beds of limestone, and hematite beds up to 20 feet thick.	
	Ordovician	Sequentia Formation		Ordovician undifferentiated		0-3		Limestone, moderate-red to yellowish-gray mottled, fossiliferous, interbedded with grayish-red siltstone.	In Cahaba Valley the limestones of the upper part of the Knox and overlying Ordovician are not differentiated. They are light to very dark gray, subdiagenetic in very coarsely crystalline, fossiliferous, and cherty in part.
		Chickamauga Limestone				200-500	1,000 <sup>3</sup>	Limestone, light-gray to bluish-gray, reddish to greenish-gray near the base, thin- to medium-bedded, subdiagenetic, fossiliferous; thin beds of chert, rare bentonite.	
		Attala Chert Conglomerate				0-50		Conglomerate, cherty, reddish-orange. Occurs mainly in Jones Valley.	
		Knox Group undifferentiated		Lower part of Knox Group undifferentiated		2,000 <sup>3</sup>	1,600 <sup>3</sup>	Dolomite, medium- to dark-gray, thick-bedded, cherty in the lower part of Knox. The upper beds of Knox are dolomite limestone and limestone.	
	Cambrian	Ketone Dolomite		Ketone Dolomite		0-600	400-600	Dolomite, brownish-gray, thick-bedded, chert-free, crystalline.	
		Conasauga Formation		Absent		1,100-1,500		Limestone, dark- to brownish-gray, subdiagenetic, medium- to thin-bedded, with light-olive to medium-gray shale. Significant magnesium content in upper part of formation in northern part of county.	
		Absent		Reno Formation			892	Shale, greenish-gray to grayish-red, thin bedded. Exposures rare in Jefferson County. Crops out only in Cahaba Valley.	

<sup>1</sup>Includes the Murphree Valley and Mount Mountain districts of the Cumberland Plateau province.<sup>2</sup>Includes the Pottsville Formation exposed in the Warrior Basin district of the Cumberland Plateau province.



**GEOLOGICAL SURVEY OF ALABAMA**  
**THOMAS J. JOINER**  
**STATE GEOLOGIST**

MAP 5  
DORA QUADRANGLE  
ALABAMA  
7.5 MINUTE SERIES 1:50,000



BASE TOPOGRAPHIC MAP BY USGS 1971














SCALE 1: 40000

**Geology from J. T. Kidd, 1979**

# ENGINEERING GEOLOGY OF THE DORA QUADRANGLE, ALABAMA

by  
Michael W. Szabo  
1979

# EXPLANATION

	Alluvium and low terrace deposits
	Pottsville Formation
	Contacts
	Anticline, axial trace
	Syncline, axial trace
	Fault, direction and amount of displacement unknown
	Normal fault: U, upthrown side; D, downthrown side; dashed where inferred, dotted where concealed
	Strike and dip of beds
	Horizontal beds
	Sandy loam
	Silty loam
	Silty loam with shale fragments
	Area disturbed by strip mining

Soils associated with Pottsville Formation

PWSIO61 01.01

MODEL STATE INFORMATION SYSTEM  
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE 11/27/84

## PWS INVENTORY REPORT

PAGE 10

## SELECTION EXTRACT FILE

PWS-ID 0000748

SYSTEM NAME.....GRAYSVILLE WATER BOARD  
PLANT TYPE.....COMMUNITY  
ACTIVITY CODE.....ACTIVE  
REGULATE BY.....REGULATED BY STATE  
CONSECUTIVE INDICATOR..CONSEC MONITORING SACTI ONLY  
DEACTIVATION REASON....  
REPORT REQUIRED.....NO  
INTERSTATE CARRIER.....NO

POPULATION SERVED.....8,958  
PLANT BEGIN DATE.....06/75  
COMPLIANCE CYCLE.....17  
NUMBER OF CONSECUTIVE PWS.....  
DEACTIVATION DATE.....00/00/00  
LAST REPORT DATE.....00/00  
LAST UPDATE DATE.....11/19/84

## SOURCE DATA

SOURCE ID

01

NAME: BIRMINGHAM

CODE: PURCHASED WATER-SURFACE SOURCE

NUMBER OF WELLS.....

WELL BEGIN DATE..00/00

SELLER ID.....0000738

AVAILABILITY: PERMANENT SOURCE

RIVER BASIN : CANABA RIVER

LATITUDE 000.00.00 LONGITUDE 000.00.00

TREATMENTS: AERATION.....0 SEDIMENTATION.....0 SOFTENING.....0 AMMONIATION.....0 UNTREATED..  
PRECHLORINATION..0 FILTRATION.....0 TASTE/ODOR...0 FLUORIDE ADJUSTMENT..0 OTHER.....  
COAGULATION.....0 CORROSION CONTROL..0 IRON REMOVAL..0 DISINFECTION.....0

PRIMARY SOURCE.....PURCHASED WATER-SURFACE SOURCE

NUMBER OF SOURCES.....1

## ADDRESS DATA

OWNER NAME: GRAYSVILLE WATER BOARD  
OWNER NAME LINE2: WAYNE TUGGLE, MAYOR  
OWNER ADDRESS: P O BOX 130  
GRAYSVILLE

AL 35073

OWNER TYPE: MUNICIPALITY

MAILING NAME: GRAYSVILLE WATER BOARD  
MAILING NAME LINE2: ATTN DAVE PATTON, SUPT.  
MAILING ADDRESS: P O BOX 130  
GRAYSVILLE

AL 35073

PLANT AREA CITY NAME MANUAL FILE REF PHONE NUMBER POSTAL CODE COUNTY: JEFFERSON  
REGION: NORTHWEST REGION  
DISTRICT:  
CMAN 6749476 01000R 1000R 205-674-5643 AL

## SURVEY DATA

LAST SURVEY SERVICE CONNECTIONS.....2,996 AVERAGE PRODUCTION.....630,000 DESIGN CAPACITY.....576,000  
DATE NUMBER OF METERS.....2,996 MAXIMUM PRODUCTION.....800,000 EMERGENCY CAPACITY.....  
11/08/84 STORAGE CAPACITY.....800,000

EXHIBIT 3.8

PWSID61 01.01

MODEL STATE INFORMATION SYSTEM  
PUBLIC WATER SYSTEM INVENTORY SUBSYSTEM

DATE 11/27/84

## PWS INVENTORY REPORT

PAGE 15

## S E L E C T I O N   E X T R A C T   F I L E

PWS-ID 0000765

SYSTEM NAME.....WEST JEFFERSON WATER SYS  
PLANT TYPE.....COMMUNITY  
ACTIVITY CODE.....ACTIVE  
REGULATE BY.....REGULATED BY STATE  
CONSECUTIVE INDICATOR..CONSEC MONITORING SACTI ONLY  
DEACTIVATION REASON....  
REPORT REQUIRED.....NO  
INTERSTATE CARRIER.....NO

POPULATION SERVED.....2,550  
PLANT BEGIN DATE.....06/75  
COMPLIANCE CYCLE.....17  
NUMBER OF CONSECUTIVE PWS.....  
DEACTIVATION DATE.....00/00/00  
LAST REPORT DATE.....00/00  
LAST UPDATE DATE.....11/19/84

## SOURCE DATA

SOURCE ID  
-----  
01 NAME: GRAYSVILLE:3HAM NUMBER OF WELLS..... AVAILABILITY: PERMANENT SOURCE  
CODE: PURCHASED WATER-SURFACE SOURCE WELL BEGIN DATE..00/00 RIVER BASIN : CANABA RIVER  
SELLER IS.....0000738 LATITUDE 000.00.00 LONGITUDE 000.00.00

TREATMENTS: AERATION.....0 SEDIMENTATION.....0 SOFTENING.....0 AMMONIATION.....0 UNTREATED..  
PRECHLORINATION..0 FILTRATION.....0 TASTE/ODOR....0 FLUORIDE ADJUSTMENT..0 OTHER.....  
COAGULATION.....0 CORROSION CONTROL..0 IRON REMOVAL..0 DISINFECTION.....0

PRIMARY SOURCE.....PURCHASED WATER-SURFACE SOURCE NUMBER OF SOURCES.....1

## ADDRESS DATA

OWNER NAME: WEST JEFFERSON WATER SYSTEM  
OWNER NAME LINE2: KENNETH MCCARTY, MAYOR  
OWNER ADDRESS: RT 2  
QUINTON AL 35130 OWNER TYPE: MUNICIPALITY

MAILING NAME: WEST JEFFERSON WATER SYSTEM  
MAILING NAME LINE2: ATTN CARL COOPER, SUPT.  
MAILING ADDRESS: RT 2  
QUINTON AL 35130

PLANT AREA CITY NAME MANUAL FILE REF PHONE NUMBER POSTAL CODE COUNTY: JEFFERSON  
----- REGION: NORTHWEST REGION  
0030JR 30JR 205-674-6454 AL DISTRICT:

## SURVEY DATA

LAST SURVEY SERVICE CONNECTIONS.....313 AVERAGE PRODUCTION.....130,000 DESIGN CAPACITY.....200,000  
DATE NUMBER OF METERS.....813 MAXIMUM PRODUCTION.....200,000 EMERGENCY CAPACITY.....  
11/08/84 STORAGE CAPACITY.....150,000



# ENVIRONMENTAL PROTECTION SYSTEMS, INC.

P O Box 20382  
106 Upton Dr  
Jackson Ms 39209  
601 922-8242

7215 Pine Forest Rd  
Pensacola Fl 32506  
904 944 0301

## ANALYTICAL REPORT

Date: February 6, 1985

Site: JWR Flat Top Nebo Mine  
Graysville, Alabama

Matrix: Water, Soil and Sediment

Client: Alabama Department of  
Environmental Management

Date Received: November 9, 1984

### EPS Lab No.

84113979  
84113980  
84113981  
84113982  
84113983  
84113984

### EPS Field Identification

NM-WA1-WP  
NM-SD1-WP  
NM-SD2-WP  
NM-SO1-AS  
NM-WA2-SI  
NM-SD3-SI

Attached sheets list results of our analysis of above samples for: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Cyanide, Base/Neutral Extractables, Acid Extractables and Volatile Organic.

Analytical Reference No.: 85.1.167

*Herbert B. Robinson*

Associate Director of Analytical Services

EXHIBIT 5.1



# ENVIRONMENTAL PROTECTION SYSTEMS, INC.

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106 Upton Dr.  
Jackson, Ms. 39209  
601 922-8242

7215 Pine Forest Rd  
Pensacola, Fl. 32506  
904 944-0301

## ANALYTICAL REPORT

Date: February 6, 1985

Site: JWR Flat Top Nebo Mine  
Graysville, Alabama

Matrix: Water, Soil and Sediment

Client: Alabama Department of  
Environmental Management

Date Received: November 9, 1984

### Spiking and Recovery Data

EPS Lab No. 84113985

<u>Parameter</u>	<u>Spiking Level (ppm)</u>	<u>Percent (%) Recovery</u>
Arsenic	0.04	102.0
Barium	2.00	104.3
Cadmium	0.10	100.0
Chromium	0.10	100.0
Lead	0.04	89.0
Mercury	0.002	96.9
Selenium	0.40	95.0
Silver	0.50	102.0
Cyanide	50.0	108.0
Hexachlorobenzene	100.0	99.1
Pentachlorophenol	100.0	113.0

*Herbert A. Johnston*

Associate Director of Analytical Services



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7215 Pine Forest Road • Pensacola, FL 32506  
Telephone: (904) 944-0301

Revision 1 (3/15/85)

## LABORATORY REPORT

85.1.167 1/6

CLIENT: Alabama Dept. of Environmental Mgmt.  
LOCATION: Montgomery, Alabama  
DATE: 02/06/85  
INVOICE NO.: To be invoiced/bp

COLLECTED BY: EPS (174)  
DATE COLLECTED: 11/07/84  
DATE RECEIVED: 11/09/84  
DATE ANALYZED: 02/05/85

## LABORATORY SAMPLE IDENTIFICATION

84113979 - NM-WA1-WP - Coal washer waste pond water  
84113980 - NM-SD1-WP " " " " " " Aug  
84113981 - NM-SD2-WP " " " " " " Aug  
84113982 - NM-S01-AS Background soil sample

ANALYSES	IDENTIFICATION NUMBER			
	3979	3980	3981	3982
Arsenic, Total, mg/l	0.028	--	--	--
Arsenic, Total, mg/kg	--	0.006	0.010	0.010
Barium, Total, mg/l	<0.5	--	--	--
Barium, Total, mg/kg	--	<0.5	<0.5	<0.5
Cadmium, Total, mg/l	<0.01	--	--	--
Cadmium, Total, mg/kg	--	0.01	<0.01	0.01
Chromium, Total, mg/l	<0.01	--	--	--
Chromium, Total, mg/kg	--	<0.01	<0.01	<0.01
Chromium, Hexavalent, mg/l	<0.01	--	--	--
Chromium, Hexavalent, mg/kg	--	<0.01	<0.01	<0.01

## COMMENT

Analyses conducted in accordance with EPA Method 604, 625, Federal Register, Volume 44, December, 1979. Analyses conducted in accordance with 40 CFR, Part 261, May, 1980, Test Methods for Evaluating Solid Waste. Metal analysis reported on a dry weight basis. All samples collected under RCRA 3012 Program at JWR Flat Top Nebo Mine, Graysville, Alabama.

## CERTIFICATION

*Herbert A. Johnston*  
MANAGER, CHEMICAL LABORATORY



*Larry P. Stolt*  
DIRECTOR, ANALYTICAL SERVICES



# ENVIRONMENTAL PROTECTION SYSTEMS, INC.

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7215 Pine Forest Road • Pensacola, FL 32506  
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Revision 1 (3/15/85)

## LABORATORY REPORT

85.1.167

2/6

CLIENT: Alabama Dept. of Environmental Mgmt.  
LOCATION: Montgomery, Alabama  
DATE: 02/06/85  
INVOICE NO.: To be invoiced/bp

COLLECTED BY: EPS (174)  
DATE COLLECTED: 11/07/84  
DATE RECEIVED: 11/09/84  
DATE ANALYZED: 02/05/85

## LABORATORY SAMPLE IDENTIFICATION

84113979 - NM-WA1-WP  
84113980 - NM-SD1-WP  
84113981 - NM-SD2-WP  
84113982 - NM-SO1-AS

ANALYSES	H <sub>2</sub> O	SEP	SEP	SOIL
	IDENTIFICATION NUMBER 3979	3980	3981	3982
Lead, Total, mg/l	<0.001	--	--	--
Lead, Total, mg/kg	--	0.016	0.011	0.012
Mercury, Total, mg/l	<0.0005	--	--	--
Mercury, Total, mg/kg	--	<0.0005	0.0008	<0.0005
Selenium, Total, mg/l	<0.001	--	--	--
Selenium, Total, mg/kg	--	<0.01	<0.01	<0.01
Silver, Total, mg/l	<0.01	--	--	--
Silver, Total, mg.kg	--	<0.01	<0.01	<0.01
Cyanide, Total, mg/l	0.614	--	--	--
Cyanide, Total, mg/kg	--	16.2	11.7	2.5
COMMENT				

Analyses conducted in accordance with EPA Method 604, 625, Federal Register, Volume 44, December, 1979. Analyses conducted in accordance with 40 CFR, Part 261, May, 1980, Test Methods for Evaluating Solid Waste. Metal analysis reported on a dry weight basis. All samples collected under RCRA 3012 Program at JWR Flat Top Nebo Mine, Graysville, Alabama.

## CERTIFICATION

*Herbert A. Johnston*  
MANAGER, CHEMICAL LABORATORY



*Larry P. Hester*  
DIRECTOR, ANALYTICAL SERVICES





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## LABORATORY REPORT

Revision 1 (3/15/85)  
85.1.167 3/6

CLIENT: Alabama Dept. of Environmental Mgmt.  
LOCATION: Montgomery, Alabama  
DATE: 02/06/85  
INVOICE NO.: To be invoiced/bp

COLLECTED BY: EPS (174)  
DATE COLLECTED: 11/07/84  
DATE RECEIVED: 11/09/84  
DATE ANALYZED: 02/05/85

## LABORATORY SAMPLE IDENTIFICATION

84113979 - NM-WA1-WP  
84113980 - NM-SD1-WP  
84113981 - NM-SD2-WP  
84113982 - NM-SO1-AS

ANALYSES	H <sub>2</sub> O	SED	SED	SOIL
	3979	3980	3981	3982
"EP TOXICITY" Extraction	--	Yes	Yes	Yes
Base/Neutrals Extractables, Screen 110, ppm	<0.01	<0.01	<0.01	<0.01
Acid Extractables, Screen 111, ppm	<0.01	<0.01	<0.01	<0.01
Volatile Organic Extractables, Screen 112, ppm	<0.01	--	--	--

## COMMENT

Analyses conducted in accordance with EPA Method 604, 625, Federal Register, Volume 44, December, 1979. Analyses conducted in accordance with 40 CFR, Part 261, May, 1980, Test Methods for Evaluating Solid Waste. All samples collected under RCRA 3012 Program at JWR Flat Top Nebo Mine, Graysville, Alabama.

## CERTIFICATION

*Herbert A. Johnston*  
MANAGER, CHEMICAL LABORATORY



*Lay P. Hester*  
DIRECTOR, ANALYTICAL SERVICES



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Telephone: (904) 944-0301

Revision 1 (3/15/85)

## LABORATORY REPORT

85.1.167

4/6

CLIENT: Alabama Dept. of Environmental Mgmt.  
LOCATION: Montgomery, Alabama  
DATE: 02/06/85  
INVOICE NO.: To be invoiced/bp

COLLECTED BY: EPS (174)  
DATE COLLECTED: 11/07/84  
DATE RECEIVED: 11/09/84  
DATE ANALYZED: 02/05/85

## LABORATORY SAMPLE IDENTIFICATION

84113983 - NM-WA2-SI (NPDES) runoff water  
84113984 - NM-SD3-SI " " sediment

ANALYSES	WATER		SEDIMENT	
	IDENTIFICATION NUMBER			
	3983	3984		
Arsenic, Total, mg/l	0.056	--		
Arsenic, Total, mg/kg	--	0.010		
Barium, Total, mg/l	<0.5	--		
Barium, Total, mg/kg	--	<0.5		
Cadmium, Total, mg/l	<0.01	--		
Cadmium, Total, mg/kg	--	<0.01		
Chromium, Total, mg/l	<0.01	--		
Chromium, Total, mg/kg	--	<0.01		
Chromium, Hexavalent, mg/l	<0.01	--		
Chromium, Hexavalent, mg/kg	--	<0.01		
COMMENT				

Analyses conducted in accordance with EPA Method 604, 625, Federal Register, Volume 44, December, 1979. Analyses conducted in accordance with 40 CFR, Part 261, May, 1980, Test Methods for Evaluating Solid Waste. Metal analysis reported on a dry weight basis. All samples collected under RCRA 3012 Program at JWR Flat Top Nebo Mine, Graysville, Alabama.

## CERTIFICATION

Herbert A. Schuster



Larry S. H.



# ENVIRONMENTAL PROTECTION SYSTEMS, INC.

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Telephone: (904) 944-0301

Revision 1 (3/15/85)

## LABORATORY REPORT

85.1.167

5/6

CLIENT: Alabama Dept. of Environmental Mgmt.  
LOCATION: Montgomery, Alabama  
DATE: 02/06/85  
INVOICE NO.: To be invoiced/bp

COLLECTED BY: EPS (174)  
DATE COLLECTED: 11/07/84  
DATE RECEIVED: 11/09/84  
DATE ANALYZED: 02/05/85

## LABORATORY SAMPLE IDENTIFICATION

84113983 - NM-WA2-SI  
84113984 - NM-SD3-SI

ANALYSES	H <sub>2</sub> O	SED.	IDENTIFICATION NUMBER	
	3983	3984		
Lead, Total, mg/l	<0.003	--		
Lead, Total, mg/kg	--	0.003		
Mercury, Total, mg/l	<0.0005	--		
Mercury, Total, mg/kg	--	<0.0005		
Selenium, Total, mg/l	<0.001	--		
Selenium, Total, mg/kg	--	<0.01		
Silver, Total, mg/l	<0.01	--		
Silver, Total, mg/kg	--	<0.01		
Cyanide, Total, mg/l	0.658	--		
Cyanide, Total, mg/kg	--	5.7		
COMMENT				

Analyses conducted in accordance with EPA Method 604, 625, Federal Register, Volume 44, December, 1979. Analyses conducted in accordance with 40 CFR, Part 261, May, 1980, Test Methods for Evaluating Solid Waste. All samples collected under RCRA 3012 Program at JWR Flat Top Nebo Mine, Graysville, Alabama.

## CERTIFICATION

*Herbert A. Johnson*  
MANAGER CHEMICAL LABORATORY



*Lawrence P. Smith*  
DIRECTOR, ANALYTICAL SERVICES



# ENVIRONMENTAL PROTECTION SYSTEMS, INC.

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Revision 1 (3/15/85)

## LABORATORY REPORT

85.1.167

6/6

CLIENT: Alabama Dept. of Environmental Mgmt.  
LOCATION: Montgomery, Alabama  
DATE: 02/06/85  
INVOICE NO.: To be invoiced/bp

COLLECTED BY: EPS (174)  
DATE COLLECTED: 11/07/84  
DATE RECEIVED: 11/09/84  
DATE ANALYZED: 02/05/85

## LABORATORY SAMPLE IDENTIFICATION

84113983 - NM-WA2-SI  
84113984 - NM-SD3-SI

ANALYSES	H <sub>2</sub> O	Sol.	IDENTIFICATION NUMBER	
	3983	3984		
"EP TOXICITY" Extraction	--	Yes		
Base/Neutrals Extractables, Screen 110, ppm	<0.01	<0.01		
Acid Extractables, Screen 111, ppm	<0.01	<0.01		
Volatile Organic Extractables, Screen 112, ppm	<0.01	--		

## COMMENT

Analyses conducted in accordance with EPA Method 604, 625, Federal Register, Volume 44, December, 1979. Analyses conducted in accordance with 40 CFR, Part 261, May, 1980, Test Methods for Evaluating Solid Waste. Metal analysis reported on a dry weight basis. All samples collected under RCRA 3012 Program at JWR Flat Top Nebo Mine, Graysville, Alabama.

## CERTIFICATION

*Herbert A. Johnson*



*L. J. Hester*

# 318 ARSANILIC ACID, MONOSODIUM SALT

## TOXICITY DATA:

3  
 orl-rat LD50: 216 mg/kg  
 ipr-rat LDLo: 400 mg/kg  
 ipr-mus LD50: 291 mg/kg  
 ivn-mus LD50: 100 mg/kg

## CODEN:

TXAPA9 18,185,71  
 JPETAB 80,393,44  
 JMCMA9 9,221,66  
 CSLNX\* NX#06774

Carcinogenic Determination: Human Positive IARC\*\*  
 23,39,80. *Toxicology Review*: 85DHAX As-,77. OSHA  
 Standard: Air: TWA 500 ug(As)/m3 FEREAC 39,  
 23540,74. Reported in EPA TSCA Inventory, 1980.  
**THR**: A human CARC. HIGH orl, ivn, ipr. See also  
 arsenic. A grasshopper bait; a food additive permitted  
 in the feed and drinking water of animals and/or for  
 the treatment of food-producing animals. See arsenic  
 compounds and aniline.

**Fire Hazard**: Mod. Decomp by heat to yield flammable  
 vapors.

**Disaster Hazard**: Dangerous; when heated to decomp or  
 on contact with acid or acid fumes, emits highly tox  
 As and NO<sub>2</sub>.

## ARSANILIC ACID, MONOSODIUM SALT

CAS RN: 127855

NIOSH #: CF 9625000

mf: C<sub>6</sub>H<sub>7</sub>AsNO<sub>3</sub>·Na; mw: 239.05

Tetra hydrate; white odorless cryst powder, faint salty  
 taste. Sol in water, somewhat sol in alc.

## SYNS:

NCI-C61176  
 (4-AMINOPHENYL)ARSONIC ACID  
 SODIUM SALT  
 ANHYDROUS SODIUM ARSANI-  
 LATE  
 ARSANILIC ACID SODIUM SALT  
 ATOXYL  
 SODIUM AMINARSONATE  
 SODIUM-P-AMINOBENZENEARSO-  
 NATE

SODIUM AMINOPHENOL ARSO-  
 NATE  
 SODIUM-P-AMINOPHENYLARSO-  
 NATE  
 SODIUM-ANILINE ARSONATE  
 SODIUM ANILARSONATE  
 SODIUM ARSANILATE  
 SODIUM-P-ARSANILATE  
 SODIUM ARSONILATE

## TOXICITY DATA:

3  
 scu-rat LD50: 75 mg/kg  
 scu-mus LD50: 400 mg/kg  
 scu-dog LDLo: 5 mg/kg  
 scu-rbt LDLo: 200 mg/kg

## CODEN:

BIZEA2 184,360,2  
 12VXA5 9,1108,7  
 HBAMAK 4,1289,35  
 HBAMAK 4,1289,35

*Toxicology Review*: 85DHAX As-,77. OSHA Standard:  
 Air: TWA 500 ug(As)/m3 FEREAC 39,23540,74. Se-  
 lected by NTP for Carcinogenesis Bioassay as of De-  
 cember 1980.

**THR**: HIGH scu. Poisonous. Can cause blindness. A  
 food additive in feed and drinking water.

**Disaster Hazard**: When heated to decomp it emits very  
 tox fumes of As and NO<sub>2</sub>.

## ARSENIC

CAS RN: 7440382

NIOSH #: CG 0525000

mf: As; mw: 74.92

Silvery to black, brittle, crystalline and amorphous metal-  
 loid. mp: 814° @ 36 atm, bp: subl @ 612°, d: black  
 crystals 5.724 @ 14°; black amor 4.7, vap. press: 1 mm  
 @ 372° (sublimes). Insol in water; sol in HNO<sub>3</sub>. See  
 also arsenic vapor.

## SYNS:

ARSENICALS  
 ARSENIC-75  
 ARSENIC BLACK  
 ARSEN (GERMAN, POLISH)

COLLOIDAL ARSENIC  
 GREY ARSENIC  
 METALLIC ARSENIC

## TOXICITY DATA:

3  
 cyt-mus-ipr 4 mg/kg/48H-1  
 orl-rat TDLo: 605 ug/kg/(35 W Preg)  
 orl-mus TDLo: 120 mg/kg/  
 (preg):TER  
 ipr-mus TDLo: 40 mg/kg/(preg):TER  
 imp-rbt TDLo: 75 mg/kg:ETA  
 orl-man TDLo: 7857 mg/kg/  
 55Y:SKN  
 orl-man TDLo: 7857 mg/kg/55Y:GIT  
 ims-rat LDLo: 20 mg/kg

## CODEN:

EXPEAM 37,129,81  
 GISAAA (8)30,77  
 TJADAB 15,31A,77

TJADAB 15,31A,77  
 ZEKBAI 52,425,42  
 CMAJAX 120,168,79

CMAJAX 120,168,79  
 NCIUS\* PH 43-64-  
 886,SEPT,70

ASBIAL 24,442,38  
 CRSBAW 81,164,18  
 ASBIAL 24,442,38

scu-rbt LDLo: 300 mg/kg  
 ipr-gpg LDLo: 10 mg/kg  
 scu-gpg LDLo: 300 mg/kg

Carcinogenic Determination: Human Positive IARC\*\*  
 23,39,80. Carcinogenic Determination: Indefinite  
 IARC\*\* 2,48,73.

**TLV**: Air: 200 ug/m3 DTLVS\* 4,24,80. *Toxicology Re-  
 view*: AMIHAB 21,132,60; 85DHAX As-,77;  
 JAVMA4 164(3),277,74; CTOXAO 5(2),151,72;  
 ARVPAX 16,95,76; KOTTAM 11(11),1300,75;  
 FOREAE 7,313,42; AQMOAC #73-18,1973;  
 PTPAD4 1,189,76; CLCHAU 19,361,73; 85CVA2  
 5,63,70; PEXTAR 12,102,69; JOCMA7 2,137,60;  
 BNYMAM 54,413,78; AMTODM 3,209,77; 85CVA2  
 5,250,70; 27ZTAP 3,19,69. OSHA Standard: Air:  
 TWA 500 ug/m3 FEREAC 39,23540,74. DOT: Poison  
 B, Label: Poison FEREAC 41,57018,76. Occupational  
 Exposure to Inorganic Arsenic recm std: Air: CL 2  
 ug/m3 NTIS\*\*. "NIOSH Manual of Analytical Meth-  
 ods" VOL 1 139,140,180,188,192,196, VOL 3 S309,  
 VOL 5 173#. NIOSH Current Intelligence Bulletin  
 14, 1976. Reported in EPA TSCA Inventory, 1980.  
**THR**: Human CARC. A hmn SKN, GIT. An exper TER,  
 ETA, ± CARC. MUT data. HIGH ims, scu, ipr. A  
 poison. Used as a food additive in food for human  
 ingestion. See also arsenic compounds.

**Fire Hazard**: Mod in the form of dust when exposed to  
 heat or flame or by chemical reaction with powerful  
 oxidizers such as bromates, chlorates, iodates, perox-  
 ides, Li, NCl<sub>3</sub>, KNO<sub>3</sub>, KMnO<sub>4</sub>, Rb<sub>2</sub>C<sub>2</sub>, AgNO<sub>3</sub>, NOCl,  
 IF<sub>5</sub>, CrO<sub>3</sub>, ClF<sub>3</sub>, ClO<sub>2</sub>, BrF<sub>3</sub>, BrF<sub>5</sub>, BrN<sub>3</sub>, RbC = CH,  
 CsC = CH.

**Explosion Hazard**: Slight in the form of dust when ex-  
 posed to flame.

**Disaster Hazard**: Dangerous; when heated or on contact  
 with acid or acid fumes, emits highly tox fumes; can  
 react vigorously on contact with oxidizing materials.  
**Incomp**: Bromine azide, dirubidium acetylide, halogens,  
 palladium, zinc, platinum, NCl<sub>3</sub>, AgNO<sub>3</sub>, CrO<sub>3</sub>, Na<sub>2</sub>O<sub>8</sub>,  
 hexafluoro isopropyl ideneamino lithium.

For further information see Vol. 1, No. 3 of *DPIM Report*

## M-ARSENIC ACID

CAS RN: 10102531

NIOSH #: CG 0760000

mf: AsHO<sub>2</sub>; mw: 123.93

## SYNS:

CYANSAN

SAN-CYAN

## TOXICITY DATA: 3

orl-hmn TDLo: 5400 mg/kg/

24W:EYE

ims-rat LD50: 310 mg/kg

orl-mus LDLo: 4 mg/kg

## CODEN:

AROPAW 94,927,76

BJPCAL 1,186,46

APFRAD 19,740,61

Reported in EPA TSCA Inventory, 1980.

**THR:** Toxic to eye in hmn via orl. HIGH ims, orl. See also cyanates.**Disaster Hazard:** When heated to decomp it emits very tox fumes of  $CN^-$  and  $Na_2O$ .

## CYANIDE

CAS RN: 57125

NIOSH #: GS 7175000

mf:  $CN^-$ ; mw: 26.02

SYN: CYANURE (FRENCH)

## TOXICITY DATA: 3

ipr-mus LD50: 3 mg/kg

## CODEN:

NATUAS 228,1315,70

**TLV:** Air: 5 mg/m<sup>3</sup> DTLVS\* 4,109,80. *Toxicology Review:* CLCHAU 19,361,73. "NIOSH Manual of Analytical Methods" VOL 1 116, VOL 3 S250. Reported in EPA TSCA Inventory, 1980.**THR:** Cyanide directly stimulates the chemoreceptors of the carotid and aortic bodies with a resultant hyperpnea. Cardiac irregularities are often noted, but the heart invariably outlasts the respirations. Death is due to respiratory arrest of central origin. It can occur within seconds or minutes of the inhalation of high concentrations of hydrogen cyanide gas. Because of slower absorption, death may be more delayed after the ingestion of cyanide salts, but the critical events still occur within the first hour.

Two other sources of cyanide have been responsible for human poisoning. One of these is amygdalin, a cyanogenic glycoside found in apricot, peach, and similar fruit pits and in sweet almonds. Amygdalin is a chemical combination of glucose, benzaldehyde, and cyanide from which the latter can be released by the action of  $\beta$ -glucosidase or emulsin. Although these enzymes are not found in mammalian tissues, the human intestinal microflora appears to possess these or similar enzymes capable of effecting cyanide release resulting in human poisoning. For this reason amygdalin may be as much as 40 times more toxic by the oral route as compared with intravenous injection. Amygdalin is the major ingredient of Laetrile, and this alleged anticancer drug has also been responsible for human cyanide poisoning. An ethical drug that may also cause cyanide poisoning in overdose is the potent vascular smooth-muscle relaxant sodium nitroprusside. Although nitroprusside is related chemically to ferricyanide, unlike the latter it penetrates into erythrocytes and reacts with hemoglobin to release its cyanide (Smith and Kruszyna, 1974). Fortunately, the therapeutic margin for nitroprusside appears to be quite large.

Cyanide is commonly found in certain rat and pest poisons, silver and metal polishes, photographic solu-

tions, and fumigating products. Compounds such as potassium cyanide can also be readily purchased from chemical stores. Cyanide is readily absorbed from all routes, including the skin, mu mem, and by inhal, although alkali salts of cyanide are toxic only when ingested. Death may occur with ingestion of even small amounts of sodium or potassium cyanide and can occur within minutes or hours depending on route of exposure. Inhalation of toxic fumes represents a potentially rapidly fatal type of exposure. Sodium nitroprusside (Smith and Kruszyna, 1974) and apricot seeds (Sayre and Kaymakalan, 1964) have also caused cyanide poisoning. A blood cyanide level of greater than 0.2  $\mu$ g/ml is considered toxic. Lethal cases have usually had levels above 1  $\mu$ g/ml. Clinically, cyanide poisoning is reported to produce a bitter, almond odor on the breath of the patient; however, only a small proportion of the population is genetically able to discern this characteristic odor. Typically, cyanide has a bitter, burning taste, and following poisoning, symptoms of salivation, nausea without vomiting, anxiety, confusion, vertigo, giddiness, lower jaw stiffness, convulsions, opisthotonos, paralysis, coma, cardiac arrhythmias, and transient respiratory stimulation followed by respiratory failure may occur. Bradycardia is a common finding, but in most cases heartbeat usually outlasts respiration (Wexler et al., 1947). A prolonged expiratory phase is considered to be characteristic of cyanide poisoning.\* The volatile cyanides resemble hydrocyanic acid physiologically, inhibiting tissue oxidation and causing death through asphyxia. Cyanogen is probably as toxic as hydrocyanic acid; the nitriles are generally considered somewhat less toxic, probably because of their lower volatility. The non-volatile cyanide salts appear to be relatively non-toxic systemically, so long as they are not ingested and care is taken to prevent the formation of hydrocyanic acid. Workers, such as electroplaters and picklers, who are daily exposed to cyanide solutions may develop a "cyanide" rash, characterized by itching, and by macular, papular, and vesicular eruptions. Frequently there is secondary infection. Exposure to small amounts of cyanide compounds over long periods of time is reported to cause loss of appetite, headache, weakness, nausea, dizziness, and symptoms of irrit of the upper respiratory tract and eyes. See also specific compounds.

**Fire Hazard:** Mod, by chemical reaction with heat, moisture, acid. Many cyanides evolve hydrocyanic acid rather easily. This is a flammable gas and is highly toxic. Carbon dioxide from the air is sufficiently acidic to liberate hydrocyanic acid from cyanide solutions. See also hydrocyanic acid.

**Explosion Hazard:** See hydrocyanic acid. Explodes if melted with nitrite or chlorate @ about 450°. Violent reaction with  $F_2$ , Mg, nitrates,  $HNO_3$ , nitrites.

**Disaster Hazard:** Dangerous; on contact with acid, acid

\* Casarett and Doull's, "Toxicology, the basic Science of Poisons" 2nd ed. Doull, Klassen and Amdur (eds). Macmillan Pub. Co. Inc. New York, N.Y.

fumes, water  
flam vapors

## CYANIDOL

mf:  $C_{12}H_{11}O_6$

SYN: 3,3',4',5'

TOXICITY I

orl-rat LD50: 235

orl-rat LD50: 240

orl-rat LD50: 4

orl-rat LD50: 8

**THR:** HIGH

Disaster Hazard

smoke and

## CYANINE D

CAS RN: 548

mf:  $C_{20}H_{20}N_2$

SYN: 6-DIMETHYL

(1,1'-BINYL)-1-

TOXICITY I

orl-rat LD50: 16

orl-rat LD50: 7

**THR:** HIGH

Disaster Hazard

tox fumes

## CYANOAC

CAS RN: 107

mf:  $C_2H_2N_2O$

White powder

SYNS:

CYANACETAMIDE

CYANACETAMIDE

CYANACETAMIDE

CYANACETAMIDE

TOXICITY I

orl-rat LD50: 1

orl-rat LD50: 7

Reported in

**THR:** MOD

Disaster Hazard

fumes of N

## CYANOAC

CAS RN: 37

mf:  $C_2H_2NO$

mp: 66

SYNS:

CYANACETAMIDE

CYANACETAMIDE

CYANACETAMIDE

CYANACETAMIDE

## 1692 LEAD CHROMATE, BASIC

Carcinogenic Determination: Human Positive IARC\*\* 23,205,80; Animal Positive IARC\*\* 23,205,80; Indefinite IARC\*\* 2,100,73.

TLV: Air: 0.05 mg(Cr)/m<sup>3</sup> DTLVS\* 4,245,80. Toxicology Review: 27ZTAP 3,86,69. OSHA Standard: Air: CL 100 ug(CrO<sub>3</sub>)/m<sup>3</sup> (SCP-O) FEREAC 39,23540,74. Occupational Exposure to Chromium (VI) recm std: Air: CL 1 ug(Cr(VI))/m<sup>3</sup> NTIS\*\*. Occupational Exposure to Inorganic Lead recm std: Air: TWA 0.10 mg(Pb)/m<sup>3</sup> NTIS\*\*. Reported in EPA TSCA Inventory, 1980. EPA TSCA 8(a) Preliminary Assessment Information Proposed Rule FERREAC 45,13646,80. THR: MUT data. An exper NEO, ETA, CARC. A hmn CARC. See also lead, chromium compounds.

Disaster Hazard: When heated to decomp it emits tox fumes of Pb.

Incomp: Iron (#+) hexacyanoferrate (4-)

For further information see Vol. 1, No. 7 of DPIM Report.

## LEAD CHROMATE, BASIC

CAS RN: 18454121 NIOSH #: OF 9800000  
mf: CrO<sub>4</sub>Pb·OPb; mw: 546.38

Red amor or crystal; mp: 920°.

### SYNS:

ARANCIO CROMO (ITALIAN)  
AUSTRIAN CINNABAR  
BASIC LEAD CHROMATE  
CHROMIUM LEAD OXIDE

C.I. 77601  
LEAD CHROMATE OXIDE  
LEAD CHROMATE, RED

### TOXICITY DATA: 3

mmo-sat 80 ug/plate  
scu-rat TDLo: 135 mg/kg:CARC  
scu-rat TD: 135 mg/kg:ETA  
scu-rat TD: 135 mg/kg:NEO

### CODEN:

MUREAV 54,139,78  
ANYAA9 271,431,76  
PBPHAW 14,47,78  
TUMOAB 57,213,71

Carcinogenic Determination: Animal Suspected IARC\*\* 23,205,80; Human Positive IARC\*\* 23,205,80. OSHA Standard: Air: TWA 200 ug(Pb)/m<sup>3</sup> (SCP-O) FEREAC 39,23540,74. Occupational Exposure to Chromium (VI) recm std: Air: CL 1 ug(Cr(VI))/m<sup>3</sup> NTIS\*\*. Occupational Exposure to Inorganic Lead recm std: Air: TWA 0.10 mg(Pb)/m<sup>3</sup> NTIS\*\*. Reported in EPA TSCA Inventory, 1980.

THR: MUT data. An exper CARC, ETA, NEO. A + human CARC. See also lead, lead compounds. See also chromium compounds.

Disaster Hazard: When heated to decomp it emits fumes of Pb.

## LEAD COMPOUNDS

THR: Poisons. Lead poisoning is one of the commonest of occupational diseases. The presence of lead-bearing materials or lead compounds in an industrial plant does not necessarily result in exposure on the part of the workman. The lead must be in such form, and so distributed, as to gain entrance into the body or tissues of the workman in measurable quantity, otherwise no exposure can be said to exist. Some are CAR of the

lungs and kidneys. Exper NEO, ETA. Mode of entry into body:

1. By inhal of the dusts, fumes, mists or vapors. (Common air contaminants.)

2. By ingestion of lead compounds trapped in the upper respiratory tract or introduced into the mouth on food, tobacco, fingers or other objects.

3. Through the skin; this route is of special importance in the case of organic compounds of lead, as lead tetraethyl. In the case of the inorganic forms of lead, this route is of no practical importance.

When lead is ingested, much of it passes through the body unabsorbed, and is eliminated in the feces. The greater portion of the lead that is absorbed is caught by the liver and excreted, in part, in the bile. For this reason, larger amounts of lead are necessary to cause poisoning if absorption is by this route, and a longer period of exposure is usually necessary to produce symptoms. On the other hand, upon inhal, absorption takes place easily from the respiratory tract and symptoms tend to develop more quickly. From the point of view of industrial poisoning, inhal of lead is much more important than is ingestion.

Lead is a cumulative poison. Increasing amounts build up in the body and eventually a point is reached where symptoms and disability occur. Lead produces a brittleness of the red blood cells so that they hemolyze with but slight trauma; the hemoglobin is not affected. Due to their increased fragility, the red cells are destroyed more rapidly in the body than normally, producing an anemia which is rarely severe. The loss of circulating red cells stimulates the production of new young cells which, on entering the blood stream, are acted upon by the circulating lead, with resultant coagulation of their basophilic material. These cells after suitable staining, are recognized as "stippled cells." As regards the effect of lead on the white blood cells, there is no uniformity of opinion. In addition to its effect on the red cells of the blood, lead produces a damaging effect on the organs or tissues with which it comes in contact. No specific or characteristic lesion is produced. Autopsies of deaths attributed to lead poisoning and experimental work on animals, have shown pathological lesions of the kidneys, liver, male gonads, nervous system, blood vessels and other tissues. None of these changes, however, have been found consistently.

In cases of lead poisoning, the amount of lead found in the blood is frequently in excess of 0.07 mg per 100 cc of whole blood. The urinary lead excretion generally exceeds 0.1 mg per liter of urine.

The toxicity of the various lead compounds appears to depend upon several factors: (1) the sol of the compound in the body fluids; (2) the fineness of the particles of the compound; sol is greater, of course, in proportion to the fineness of the particles; (3) conditions under which the compound is being used; where a lead compound is used as a powder; contamination of the atmosphere will be much less where the powder is kept damp. Of the various lead compounds, the carbonates, the monoxide and sulfate are considered to be more

toxic than metallic lead or other lead compounds. Lead arsenate is very toxic, due to the presence of the arsenic radical.

**Signs and Symptoms:** Industrial lead poisoning commonly occurs following prolonged exposure to lead or its compounds. The common clinical types of lead poisoning may be classified according to their clinical picture as (a) alimentary; (b) neuromotor; and (c) encephalic. Some cases may show a combination of clinical types. The alimentary type occurs most frequently, and is characterized by abdominal discomfort or pain. Severe cases may present actual colic. Other complaints are constipation and/or diarrhea, loss of appetite, metallic taste, nausea and vomiting, lassitude, insomnia, weakness, joint and muscle pains, irritability, headache and dizziness. Pallor, lead line on the gums, pyorrhea, loss of weight, abdominal tenderness, basophilic stippling, anemia, slight albuminuria, increased urinary excretion, and an increase in the lead content of the whole blood, are signs which may accompany the above symptoms.

In the neuromuscular type, the chief complaint is weakness, frequently of the extensor muscles of the wrist and hand, unilateral or bilateral. Other muscle groups which are subject to constant use may be affected. Gastroenteric symptoms are usually present, but are not as severe as in the alimentary type of poisoning. Joint and muscle pains are likely to be more severe. Headache, dizziness and insomnia are frequently prominent. True paralysis is uncommon, and usually is the result of prolonged exposure.

Lead encephalopathy is the most severe but the rarest manifestation of lead poisoning. In the industrial worker it follows rapid and heavy lead absorption. Organic lead compounds, such as tetraethyl lead, are absorbed rapidly through the skin as well as through the lungs, and are selectively absorbed by the CNS. The clinical picture in these cases is usually an encephalopathy. With inorganic lead compounds, comparable conc in the CNS are reached only when the workplace is heavily contaminated with vapor, fume and dust. Encephalopathy begins abruptly, and is characterized by signs of cerebral and meningeal involvement. There is usually stupor, progressing to coma, with or without convulsion, and often terminating in death. Excitation, confusion and mania are less common. In milder cases of short duration, there may be symptoms of headache, dizziness, somnolence and insomnia. The cerebrospinal pressure may be increased. See also specific compound.

**Diagnosis:** A diagnosis of lead poisoning should not be made on the basis of any single clinical or laboratory finding. There must be a history of significant exposure, signs, and symptoms (as described above) compatible with the diagnosis, and confirmatory laboratory tests. Increase of stippled red blood cells, mild anemia, and elevated lead in blood and urine, i.e., more than 0.07 mg/100 ml blood and similar values per liter of urine. An increase of coproporphyrins and certain amino acids in urine may be present. Diagnostic mobilization

of lead with calcium EDTA may be useful in questionable cases.

**Treatment of Lead Poisoning:** It has been found that the chelating agent, calcium ethylenediaminetetracetate, and related compounds are highly efficacious in removing absorbed lead from the tissues of the body. (The therapeutic agents of this group are also known as versene, versenate, edathamil and Ca EDTA. Ca EDTA is effective only when administered intravenously. Various dosage schedules have been proposed. An effective regime is 3-6 g of Na Ca EDTA in 300 cc-500 cc of 5% glucose by intravenous drip over a period of 3-8 hrs. Treatment may be given daily for 5-10 days with an interval of one week between courses. Another plan is to give treatment at intervals of 3-5 days until delead-ing has been accomplished.

**Disaster Hazard:** See lead.

## LEAD(II) CYANIDE

CAS RN: 592052  
mf:  $C_2N_2Pb$ ; mw: 259.23

NIOSH #: OG 0175000

White powder.

### SYNS:

C.I. 77610

C.I. PIGMENT YELLOW 48

CYANURE DE PLOMB (FRENCH)

LEAD CYANIDE (DOT)

**TOXICITY DATA:** 3  
ipr-rat LDLo: 100 mg/kg

**CODEN:**  
NCNSA6 5,27,53

OSHA Standard: Air: TWA 200 ug(Pb)/m<sup>3</sup> (SCP-O)  
FEREAC 39,23540,74. DOT: Poison B, Label: Poison  
FEREAC 41,57018,76. Occupational Exposure to Inorganic Lead recm std: Air: TWA 0.10 mg(Pb)/m<sup>3</sup> NTIS\*\*.

**THR:** HIGH ipr. A poison. See also lead compounds and cyanides. Violent reaction with Mg. A fire hazard as a powerful oxidizer.

**Disaster Hazard:** When heated to decomp it emits very tox fumes of Pb, CN<sup>-</sup> and NO<sub>2</sub>.

**Incomp:** Magnesium.

## LEAD DICHLORITE

mf:  $Cl_2O_4Pb$ ; mw: 477.00

**THR:** See also lead compounds.

**Incomp:** Antimony sulfide, or sulfur.

**Explosion Hazard:** Self-explodes.

**Disaster Hazard:** When heated to decomp it emits very tox fumes of Pb and Cl<sup>-</sup>.

## LEAD DIMETHYLDITHOCARBAMATE

CAS RN: 19010663  
mf:  $C_6H_{12}N_2S_4 \cdot Pb$ ; mw: 447.63

NIOSH #: OF 8850000

Solid, mp: 258°, d: 2.5

### SYNS:

BIS(DIMETHYLCARBAMODITHIOATO-S,S')LEAD

BIS(DIMETHYLDITHIOCARBAMIATO)LEAD

LEDATE

NCI-C02891



## REFERENCES

## REFERENCES

1. Site Inspection Log Book ALD9805594 70, Jim Walter Resources Flat Top, Nebo Mine, November 7, 1984 (interview, observations, measurements and estimates, site plans and analytical data of sampling, etc.).
2. ADEM Land, Water and Air Divisions, Montgomery, Alabama, file correspondence, permit/regulatory/enforcement actions, and staff communications)
3. Environmental Data Inventory, State of Alabama, Mobile District, U.S. Army Corps of Engineers, 1981.
4. Engineering Geology of Jefferson County, Atlas 14, Geological Survey of Alabama, 1979.
5. Water Supply of the Birmingham Area, Alabama, U.S. Geological Survey Circular 254, 1953.
6. Groundwater Resources of the Birmingham and Cahaba Valleys of Jefferson County, Alabama, Circular 103, Geological Survey of Alabama, 1978.
7. ADEM Public Water Supply Data and Well Logs for Jefferson County, Alabama.
8. Alabama County Data Book, 1983.
9. Alabama Director of Mining and Manufacturing, 1982-1983.
10. Dangerous Properties of Industrial Materials, Sixth Edition, North Irving Sax, 1984.
11. The Merck Index, Ninth Edition, Merck & Company, Inc., 1976.
12. Telephone interviews with Mr. Winston McGill, Environmental Coordinator.
13. Jim Walters Resources Flat Top, Nebo Mine, Preliminary Assessment ALD9805594 70, September 12, 1984.

ENVIRONMENTAL PROTECTION SYSTEMS, INC.

Alabama RCRA 3012 Site Ranking Scheme

EPS Form 3012-V

Site Name TWR Flat Top Nebo  
Site Number \_\_\_\_\_

Site Inspection Ranking Scheme

(Select one answer for each of the following seven questions)

1. Are Hazardous Substances Present?

- A. Confirmed on site!
- B. Suspected at site!
- C. It is unknown!
- D. No hazardous substances
- E. RCRA facility only!

10 points	_____
5 points	<u>5</u>
2 points	_____
0 points	_____
0 points	_____

2. Is There a Pollution Dispersal Pathway?

- A. Direct to surface and/or groundwater.
- B. Indirect to surface and/or groundwater.
- C. Suspected to surface and/or groundwater.
- D. Not known for sure.
- E. No pathway.

5 points	_____
4 points	_____
3 points	<u>3</u>
2 points	_____
0 points	_____

3. Characteristics of Human Population?

- A. High density.
- B. Medium density.
- C. Low density.
- D. No population.

5 points	_____
4 points	_____
3 points	_____
2 points	<u>2</u>

4. Characteristics of Natural Environment?

- A. Critical habitat including endangered species, etc.
- B. Sensitive habitat.
- C. Common less sensitive habitat.

5 points	_____
3 points	_____
2 points	<u>2</u>

5. How is Human Population Affected By Site?

- A. Public utility of drinking water from site.
- B. Direct public access to site.
- C. Public access to affected surface water.
- D. Only potential for human population contact.
- E. Low or no potential for contact.

5 points	_____
4 points	_____
3 points	_____
2 points	_____
1 point	<u>1</u>

6. Facility Management Practices at Site?

- A. Site actively supervised and managed currently with monitoring reports and other permit and report requirements.
- B. Site inadequately managed records not up-to-date.

1 point	<u>1</u>
3 points	_____

C. Site not currently managed or regulated.

D. Abandon site.

4 points

5 points

7. Potential Responsible Parties for Site Operations?

A. Controlling party identified and accepts responsibility for site.

1 point

B. Suspected controlling party identified but does not accept responsibility for site.

4 points

C. No responsible party available.

5 points

Ranking Score =

$$\frac{5}{\#1} \times \left[ \frac{3}{\#2} + \frac{2}{\#4} + \left( \frac{2}{\#3} \times \frac{1}{\#5} \right) + \frac{1}{\#6} + \frac{1}{\#7} \right]$$

TABLE 1. Ranking Assessment

NUMERICAL RANGE

0-50  
50-150  
150-300  
300-450

PRIORITY ASSESSMENT

NONE  
LOW  
MEDIUM  
HIGH

Ranking Score: 45

Priority Assessment: NONE



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE AL 02 SITE NUMBER 0980559470

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Jim Walters Resources / Flat Top Nebo Mine 02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Route 1  
03 CITY Graysville 04 STATE AL 05 ZIP CODE 35444 06 COUNTY Jefferson 07 COUNTY CODE 073 08 CONG DIST 06  
09 COORDINATES LATITUDE 33 40 00 LONGITUDE 087 01 23 10 TYPE OF OWNERSHIP (Check one)  
☒ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL  
☐ F. OTHER

III. INSPECTION INFORMATION

01 DATE OF INSPECTION 11.7.84 02 SITE STATUS ☐ ACTIVE ☒ INACTIVE 03 YEARS OF OPERATION 1890's Present UNKNOWN  
MONTH DAY YEAR BEGINNING YEAR ENDING YEAR

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR  
☐ E. STATE ☒ F. STATE CONTRACTOR EPS, Inc. ☐ G. OTHER  
(Name of firm) (Specify)

05 CHIEF INSPECTOR Paul J. Bierstine, P.E. 06 TITLE Hydrogeologist 07 ORGANIZATION EPS, Inc. 08 TELEPHONE NO. 601 922-8242

09 OTHER INSPECTORS Billy A. Warden 10 TITLE Field Engineer 11 ORGANIZATION EPS, Inc. 12 TELEPHONE NO. ( )

( )

( )

( )

( )

13 SITE REPRESENTATIVES INTERVIEWED Mr. Winston McGill 14 TITLE Env. Coordinator 15 ADDRESS Jim Walters Resources Mining Division, P.O. Box 113 Breakwood, AL 35447 16 TELEPHONE NO. (205) 254-7042

( )

( )

( )

( )

( )

( )

17 ACCESS GAINED BY (Check one) ☒ PERMISSION ☐ WARRANT 18 TIME OF INSPECTION 8:30 a.m. 19 WEATHER CONDITIONS clear, cold (35-40°F) slight wind

IV. INFORMATION AVAILABLE FROM

01 CONTACT Steve Maurer SCW 02 OF (Agency/Organization) ADEM 03 TELEPHONE NO. (205) 271-7728

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM Paul J. Bierstine 05 AGENCY EPS 06 ORGANIZATION EPS 07 TELEPHONE NO. (601) 922-8242 08 DATE 3.12.85  
MONTH DAY YEAR



☐ I. HIGHLY VOLATILE  
☐ J. EXPLOSIVE  
☐ K. REACTIVE  
☐ L. INCOMPATIBLE  
☒ M. NOT APPLICABLE



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE

02 SITE NUMBER

AL

0980559470

II. HAZARDOUS CONDITIONS AND INCIDENTS

NONE

01 ☐ A. GROUNDWATER CONTAMINATION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ B. SURFACE WATER CONTAMINATION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ C. CONTAMINATION OF AIR

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ E. DIRECT CONTACT

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ F. CONTAMINATION OF SOIL

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: \_\_\_\_\_

(Acres)

04 NARRATIVE DESCRIPTION

01 ☐ G. DRINKING WATER CONTAMINATION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

AL 0980559470

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

NONE

01 ☐ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills/Runoff/Standing liquids/Leaking drums)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis reports)





POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION  
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 1980 559 470

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
<input checked="" type="checkbox"/> A. NPDES	unknown			
<input type="checkbox"/> B. UIC				
<input type="checkbox"/> C. AIR				
<input type="checkbox"/> D. RCRA				
<input type="checkbox"/> E. RCRA INTERIM STATUS				
<input type="checkbox"/> F. SPCC PLAN				
<input type="checkbox"/> G. STATE (Specify)				
<input type="checkbox"/> H. LOCAL (Specify)				
<input type="checkbox"/> I. OTHER (Specify)				
<input type="checkbox"/> J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply)	05 OTHER
<input checked="" type="checkbox"/> A. SURFACE IMPOUNDMENT	unknown		<input type="checkbox"/> A. INCINERATION	<input checked="" type="checkbox"/> A. BUILDINGS ON SITE
<input type="checkbox"/> B. PILES			<input type="checkbox"/> B. UNDERGROUND INJECTION	
<input type="checkbox"/> C. DRUMS, ABOVE GROUND			<input type="checkbox"/> C. CHEMICAL/PHYSICAL	
<input type="checkbox"/> D. TANK, ABOVE GROUND			<input type="checkbox"/> D. BIOLOGICAL	
<input type="checkbox"/> E. TANK, BELOW GROUND			<input type="checkbox"/> E. WASTE OIL PROCESSING	
<input type="checkbox"/> F. LANDFILL			<input type="checkbox"/> F. SOLVENT RECOVERY	
<input type="checkbox"/> G. LANDFARM			<input type="checkbox"/> G. OTHER RECYCLING/RECOVERY	
<input type="checkbox"/> H. OPEN DUMP			<input checked="" type="checkbox"/> H. OTHER pH Adjustment (Specify)	
<input type="checkbox"/> I. OTHER (Specify)				06 AREA OF SITE unknown (Acres)

07 COMMENTS  
Surface impoundments are used for pH adjustment of acidic mine overburden drainage & coal washer effluent. Req. by NPDES permit (2 outfalls).

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)  
☒ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO  
02 COMMENTS

VI. SOURCES OF INFORMATION (Check specific references, e.g. state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

AL 10980559470

II. DRINKING WATER SUPPLY

Graysville purchases water from Birmingham

01 TYPE OF DRINKING SUPPLY  
(Check as applicable)

SURFACE WELL  
COMMUNITY A. ☒ B. ☐  
NON-COMMUNITY C. ☐ D. ☒

02 STATUS

ENDANGERED AFFECTED MONITORED  
A. ☐ B. ☐ C. ☒  
D. ☐ E. ☐ F. ☐

03 DISTANCE TO SITE

A. >10 (mi)  
B. 13 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING  
(Other sources available)  
COMMERCIAL, INDUSTRIAL, IRRIGATION  
(No other water sources available)  
☒ C. COMMERCIAL, INDUSTRIAL, IRRIGATION  
(Limited other sources available)  
☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER

03 DISTANCE TO NEAREST DRINKING WATER WELL 13 (mi)

04 DEPTH TO GROUNDWATER

80-100 (ft)

05 DIRECTION OF GROUNDWATER FLOW

to S

06 DEPTH TO AQUIFER  
OF CONCERN

80-100 (ft)

07 POTENTIAL YIELD  
OF AQUIFER

0.5 x 10<sup>6</sup> (gpd)

08 SOLE SOURCE AQUIFER

☒ YES ☐ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

Miller Steam plant has one well about 3 miles south of site.  
Nearest drinking well 13 miles east @ Country Club

10 RECHARGE AREA

☒ YES  
☐ NO

COMMENTS

Pottsville fm aquifer  
recharge area is very  
extensive (10-12 counties)

11 DISCHARGE AREA

☒ YES  
☐ NO

COMMENTS

For Pottsville @  
moderately shallow  
depths

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION  
DRINKING WATER SOURCE  
☐ B. IRRIGATION, ECONOMICALLY  
IMPORTANT RESOURCES  
☒ C. COMMERCIAL, INDUSTRIAL  
☐ D. NOT CURRENTLY USED

Birmingham - Cahaba River

near site (Locust Fork)

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:

Locust Fork of the Warrior River

AFFECTED

Possibly

DISTANCE TO SITE

<1

(mi)

(mi)

(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE

A. <100  
NO. OF PERSONS

TWO (2) MILES OF SITE

B. <200  
NO. OF PERSONS

THREE (3) MILES OF SITE

C. <500  
NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION

0.2 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE

unknown

04 DISTANCE TO NEAREST OFF-SITE BUILDING

<0.2 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Sparsely populated rural area with numerous coal  
strip mines in the area. Nearest community  
is Graysville, AL



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 0980559470

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A.  $10^{-6} - 10^{-8}$  cm/sec ☒ B.  $10^{-4} - 10^{-6}$  cm/sec ☐ C.  $10^{-4} - 10^{-3}$  cm/sec ☐ D. GREATER THAN  $10^{-3}$  cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE  
(Less than  $10^{-6}$  cm/sec)  
☒ B. RELATIVELY IMPERMEABLE  
( $10^{-4} - 10^{-6}$  cm/sec)  
☐ C. RELATIVELY PERMEABLE  
( $10^{-2} - 10^{-4}$  cm/sec)  
☐ D. VERY PERMEABLE  
(Greater than  $10^{-2}$  cm/sec)

03 DEPTH TO BEDROCK

0-5 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

unknown (ft)

05 SOIL PH

4.5-5.5

06 NET PRECIPITATION

18.8 (in)

07 ONE YEAR 24 HOUR RAINFALL

$\pm 3.5$  (in)

08 SLOPE

SITE SLOPE  
75 %

DIRECTION OF SITE SLOPE  
to S

TERRAIN AVERAGE SLOPE  
6-40 %

09 FLOOD POTENTIAL

SITE IS IN YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE

OTHER

A. (mi)

B. (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

(mi)

ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS; NATIONAL/STATE PARKS,  
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS  
PRIME AG LAND AG LAND

A. 0 (mi)

B. 0.2 (mi)

C. 75 (mi) D. 75 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

on edge of Warrior Basin (Coal District) which is a dissected sandstone/shale plateau. Site elevations vary from over 400 feet to around 300 feet along the Locust Fork River, which surrounds the site on north, west & south sides. Slopes from nearly level to moderately steep (vertical)

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

- Env. Data Inventory, State of Alabama, 1986



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL D980539470

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER	Two (2)	Environmental Protection Systems,	March '85
WASTE		Jackson, MS	
AIR			
RUNOFF			
SPILL			
SOIL	One (1)	" " "	"
VEGETATION			
OTHER (Sediments)	Three (3)	" " "	"

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
pH & Temp	Coal wastes impoundment 19°C, pH 3.1 s.u.
	Western NPDES outfall 19°C, pH 4.2 s.u.

IV. PHOTOGRAPHS AND MAPS

01 TYPE <input type="checkbox"/> GROUND <input type="checkbox"/> AERIAL	02 IN CUSTODY OF _____ (Name of organization or individual)
03 MAPS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	04 LOCATION OF MAPS ADEM, Montgomery, AL

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

- SI Logbook ALD980539470



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

AL 0980539 471

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME Jim Walter Resources	02 D+B NUMBER	08 NAME	09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Hwy 216, P.O. Box 113	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
05 CITY Brookwood	06 STATE AL	07 ZIP CODE 35444	12 CITY
13 STATE	14 ZIP CODE		
01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY
13 STATE	14 ZIP CODE		
01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY
13 STATE	14 ZIP CODE		
01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY
13 STATE	14 ZIP CODE		

III. PREVIOUS OWNER(S) (List most recent first)

IV. REALTY OWNER(S) (if applicable; list most recent first)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY
06 STATE	07 ZIP CODE		
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY
06 STATE	07 ZIP CODE		
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY
06 STATE	07 ZIP CODE		

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 980559470

II. CURRENT OPERATOR (Provide if different from owner)				OPERATOR'S PARENT COMPANY (If applicable)			
01 NAME Same (currently idle)		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER					
III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)				PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)			
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					
01 NAME		02 D+B NUMBER		10 NAME		11 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE	14 CITY		15 STATE	16 ZIP CODE
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD					

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 0980559470

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
05 CITY	06 STATE 07 ZIP CODE	

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE 07 ZIP CODE	05 CITY	06 STATE 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 1980559470

II. PAST RESPONSE ACTIVITIES

NONE

01 ☐ A. WATER SUPPLY CLOSED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ D. SPILLED MATERIAL REMOVED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ E. CONTAMINATED SOIL REMOVED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ F. WASTE REPACKAGED  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ G. WASTE DISPOSED ELSEWHERE  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ H. ON SITE BURIAL  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ I. IN SITU CHEMICAL TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ J. IN SITU BIOLOGICAL TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ K. IN SITU PHYSICAL TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ L. ENCAPSULATION  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ M. EMERGENCY WASTE TREATMENT  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ N. CUTOFF WALLS  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ P. CUTOFF TRENCHES/SUMP  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_

01 ☐ Q. SUBSURFACE CUTOFF WALL  
04 DESCRIPTION

02 DATE \_\_\_\_\_

03 AGENCY \_\_\_\_\_





POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

AL 1980559 470

II. PAST RESPONSE ACTIVITIES (Continued)

NONE

01 ☐ R. BARRIER WALLS CONSTRUCTED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ S. CAPPING/COVERING  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ T. BULK TANKAGE REPAIRED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ U. GROUT CURTAIN CONSTRUCTED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ V. BOTTOM SEALED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ W. GAS CONTROL  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ X. FIRE CONTROL  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Y. LEACHATE TREATMENT  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ Z. AREA EVACUATED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 1. ACCESS TO SITE RESTRICTED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 2. POPULATION RELOCATED  
04 DESCRIPTION

02 DATE

03 AGENCY

01 ☐ 3. OTHER REMEDIAL ACTIVITIES  
04 DESCRIPTION

02 DATE

03 AGENCY

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE  
SITE INSPECTION REPORT  
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 0980339470

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

October 30, 1984

Mr. Winston McGill  
Jim Walter Resources  
Mining Division  
P. O. Box 113  
Brookwood, Alabama 35447

Dear Mr. McGill:

The purpose of this letter is to follow-up our phone conversation concerning the upcoming on-site screening study of the Flat Top Noho Mine facility (ALD980559470) on November 7, 1984 at 8:30 a.m.

This on-site screening study is part of the site inventory program now being conducted in the State of Alabama according to requirements of Section 3012 of the Resource Conservation and Recovery Act.

This study will be conducted by personnel from the firm Environmental Protection Systems, Inc. This firm has been retained by the Alabama Department of Environmental Management to perform the site inventory program.

Mr. Paul Pierstine of Environmental Protection Systems, Inc. will be in charge of this on-site screening study.

It is anticipated that several soil/sediment and water samples will be taken.

If you desire, EPS, Inc. will provide split samples. However, you will be required to provide your own containers and analysis for your part of the split samples.

As part of this study, EPS, Inc. will photograph sampling areas for documentation purposes.

Once the site screening study report and sample analysis have been completed, I will send you a copy of our findings.

Thank you for your cooperation and assistance in this inventory program. If you have any questions, please call me at (205) 271-7728.

Sincerely,

Stephen C. Maurer  
RCRA 3012 Program Manager  
Land Division

SCM:bw

cc: Mr. Paul Pierstine, EPS, Inc.

ENVIRONMENTAL PROTECTION SYSTEMS, INC.

RCRA 3012  
SITE SCREENING STUDY FORM

EPS Project Manager: Will Warren

Date: 09/21/84

SITE INFORMATION

EPA I.D. No: ALD 980559470

Site Name: JWR Flat Top Nebo Mine

Street: Route 1

City: Graysville

County: Jefferson

State: Alabama

Site Owner: Jim Walter Resources, Inc.

Site Manager: Mr. Winston McGill

Phone No: (205) 254-7042

Address: Brookwood, Alabama

Purpose of Study: To collect environmental and waste samples on and around the site to determine and characterize any hazardous materials present.

Site Sketch Attached: ☐ Yes ☒ No (Topo Only)

SITE BACKGROUND

Site Description (including Waste Types and Dispositions):

Idle coal mine. Notified for possible solvents, etc. in waste piles of mining overburden.

## METHODOLOGY

All sample collection, sample preservation and chain-of-custody procedures used during this investigation will be in accordance with the standard operating procedures as specified in the Quality Control/Quality Assurance Plan for the Analytical and Environmental Division of Environmental Protection Systems, Inc., revised August 31, 1984. All laboratory analyses and quality assurance procedures used during this investigation will be in accordance with standard procedures and protocols as specified in the Quality Control/Quality Assurance Plan for the Analytical and Environmental Division of Environmental Protection Systems, Inc., revised August 31, 1984, or as specified by the existing United States Environmental Protection Agency standard procedures and protocols for the contract analytical laboratory program.

## SAMPLING REQUIREMENTS

No. Water Samples: 1  
No. Sludge Samples:     

No. Soil/Sediment Samples: 3  
Other:     

Split Samples Requested?:      Yes      No      Unknown

If yes, reason:     

Sample Information:

<u>Station</u>	<u>Type</u>	<u>Organics</u>			<u>Metals</u>		<u>VOA</u>	<u>Other</u>
		<u>Acid</u>	<u>B/N</u>	<u>Pest</u>	<u>Total</u>	<u>EPT</u>		
NM-WA1-WP	Water/Grab	X	X			X	X	X
NM-SD1-WP	Sed./Comp.	X	X			X	<del>X</del>	X
NM-SD2-WP	Sed./Comp.	X	X			X	<del>X</del>	X
NM-S01-AS	Soil/Comp.	X	X			X	<del>X</del>	X
NM-WA2-SI	Water/Grab	X	X			X	X	X
NM-SD3-SI	Sed/Comp	X	X			X	<del>X</del>	X

TOTALS:

Water 1  
Soil 1  
Sediment 2  
Sludge       
Other     

Manifest # 840 222  
C of C

### LABORATORY RESOURCE REQUIREMENTS

Anticipated Date(s) of Sample Delivery: October/November 84

#### Analytical Needs:

<u>Analysis</u>	<u>Water Samples</u>	<u>Soil Samples</u>	<u>Totals</u>
Organics			
Acid Extractables:	1	3	4
Base/Neutrals:	1	3	4
Pesticides:			
Organics (Other: ):			
Total Metals			
(Specified: ):			
EP Toxic Metals			
(Specified: <u>All</u> ):	1	3	4
VOA:	<del>2</del>	<del>2</del>	<del>4</del> 2
Other: Cyanide	1	3	4

### PERSONNEL REQUIREMENTS

Field Personnel:

### REGULATORY COORDINATION

EPA Project Officer: Joel Veater      Phone No. 404/881-2234

Location: Atlanta, Georgia

Local Agency Contact: Steve Maurer      Phone No. 205/271-7728

Location: Montgomery, Alabama

### PROJECT SCHEDULE

Site Screening Study Form Transmittal Date:

Field Study Date:

Anticipated Data Receipt Date:

Station NumberRemarks

NM-WA1-WP

Nebo Mine water sample (grab) from waste pile leachate.

NM-SD1-WP

Nebo Mine sediment composite from waste pile.

NM-SD2-WP

Nebo Mine sediment composite from waste pile.

NM-S01-AS

Background soil sample.

• NM-WA2-SI

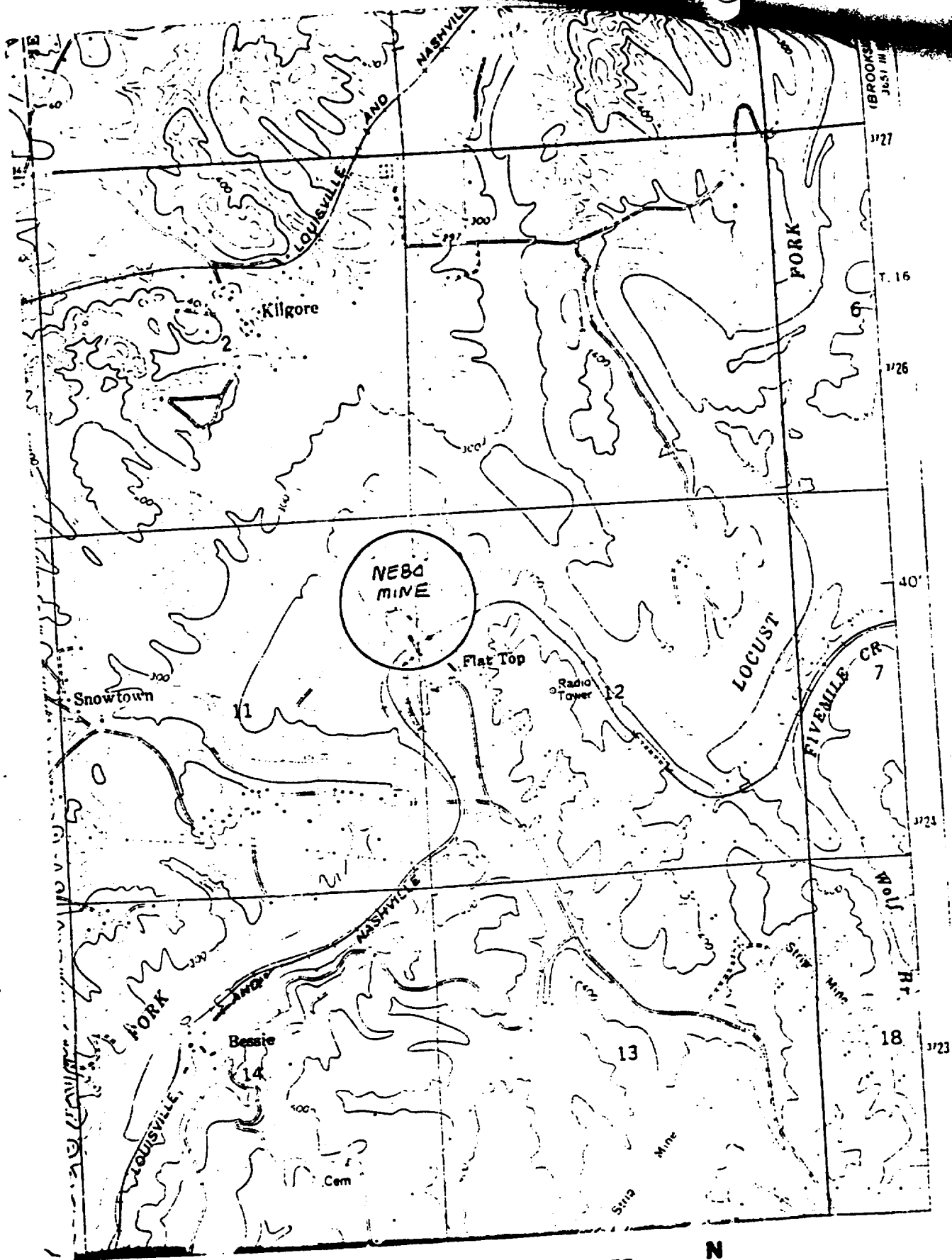
Surface impoundment

, NM-S03-SI

"

"

Same  
comp.



U.S.G.S. 7 1/2 MIN. SERIES  
Dora, ALABAMA





ENVIRONMENTAL PROTECTION SYSTEMS, INC.  
RCRA 3012  
SITE SAFETY PLAN

A. GENERAL INFORMATION

SITE: Jim Walter Resources Flat Top EPA NO.: ALD980559470

LOCATION: Route 1, Graysville, AL

PLAN PREPARED BY: Paul J. Bierstine DATE: 09/21/84  
APPROVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
E. Corbin McGriff, Jr., Ph.D., P.E.

OBJECTIVE(S): To determine if there are any hazardous contaminants on the site.

PROPOSED DATE OF INVESTIGATION:

BACKGROUND REVIEW: Complete: X Preliminary: \_\_\_\_\_

DOCUMENTATION/SUMMARY: OVERALL HAZARD: Serious: \_\_\_\_\_ Moderate: \_\_\_\_\_  
Low: X Unknown: \_\_\_\_\_

---

B. SITE/WASTE CHARACTERISTICS

WASTE TYPE(S): Liquid: X Solid: \_\_\_\_\_ Sludge: \_\_\_\_\_ Gas: \_\_\_\_\_

CHARACTERISTICS: Corrosive: X Ignitable: \_\_\_\_\_ Radioactive: \_\_\_\_\_ Volatile: X  
Toxic: X Reactive: \_\_\_\_\_ Unknown: X  
Other (Name): \_\_\_\_\_

FACILITY DESCRIPTION: Inactive coal mine with CERCLA notification for possible solvents in overburdened waste pile.

Principal Disposal Method (type and location): Waste pile on-site.

Unusual Features (dike integrity, power lines, terrain, etc.):

Status: (active, inactive, unknown) Idle

History: (Worker or non-worker injury; complaints from public; previous agency action): Unknown

**Respiratory hazard very low. Direct contact to be avoided**

PERIMETER ESTABLISHMENT: Map/Sketch Attached X Site Secured?       
 Perimeter Identified?      Zone(s) of Contamination Identified?     

Level of Protection    A    B    C    D    X

**Surveillance Equipment and Materials:** TYVEK booties, splash goggles, hard hats, gloves, safety line, if needed.

**Special Equipment, Facilities, or Procedures:**

**SITE ENTRY PROCEDURES:** Permission of owner/operator should be obtained before entry.

## Responsibility

**WORK LIMITATIONS (Time of day, etc.):** Daylight hours

**INVESTIGATION-DERIVED MATERIAL DISPOSAL:** Samples will be sent to the laboratory for analysis. Samples will then be disposed of by the laboratory.

## E. EMERGENCY INFORMATION

### LOCAL RESOURCES

Ambulance: (205) 324-8557  
Hospital or Emergency Room: (205) 592-1400  
Poison Control Center: 1-800-462-0800 or 1-800-292-6678  
Police: (205) 674-5643  
Fire Department: (205) 674-7711  
Airport:  
Explosives Unit:  
EPA Contact: (404) 881-2234/Ms. Camilla Warren

### SITE RESOURCES

Water Supply: Unknown  
Telephone: Unlikely  
Radio:  
Other: First aid kit in EPS vehicle

### EMERGENCY CONTACTS

Mr. Dan Cooper, ADEM, (205) 271-7732  
EPA Emergency Spill Center (404) 881-4062

---

## F. EMERGENCY ROUTES

(Give road or other directions; attach map)

Hospital:

Other:



POTENTIAL HAZARDOUS WASTE SITE  
TENTATIVE DISPOSITION

REGION IV SITE NUMBER  
ALD980559470

Fill this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency, Site Tracking System, Hazardous Waste Enforcement Task Force (EN-335), 401 M St., SW, Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME <i>Jim Walter Resources Flat Top Nebra Mine</i>	B. STREET <i>Route 1</i>	
C. CITY <i>Graysville</i>	D. STATE <i>AL</i>	E. ZIP CODE <i>35444</i>

II. TENTATIVE DISPOSITION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY			
		EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED -- NO HAZARD					
B. INVESTIGATIVE ACTION(S) NEEDED (If yes, complete Section III.)					
C. REMEDIAL ACTION NEEDED (If yes, complete Section IV.)					
D. ENFORCEMENT ACTION NEEDED (If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)					

E. RATIONALE FOR DISPOSITION

*103c - 55 gal of solvents/oil in landfill - residue in cans, spillage.*

F. INDICATE THE ESTIMATED DATE OF FINAL DISPOSITION  
(mo., day, & yr.)

G. IF A CASE DEVELOPMENT PLAN IS NECESSARY, INDICATE THE ESTIMATED DATE ON WHICH THE PLAN WILL BE DEVELOPED  
(mo., day, & yr.)

H. PREPARER INFORMATION

1. NAME <i>Camilla Warren</i>	2. TELEPHONE NUMBER <i>FTS 257-2234</i>	3. DATE (mo., day, & yr.) <i>11/06/84</i>
----------------------------------	--------------------------------------------	----------------------------------------------

III. INVESTIGATIVE ACTIVITY NEEDED

A. IDENTIFY ADDITIONAL INFORMATION NEEDED TO ACHIEVE A FINAL DISPOSITION.

*State screening report*

B. PROPOSED INVESTIGATIVE ACTIVITY (Detailed Information)

1. METHOD FOR OBTAINING NEEDED ADDITIONAL INFO.	2. SCHEDULED DATE OF ACTION (mo., day, & yr.)	3. TO BE PERFORMED BY (EPA, Con- tractor, State, etc.)	4. ESTIMATED MANHOURS	5. REMARKS
A. TYPE OF SITE INSPECTION (1) <i>Screening</i>		<i>State Contractor</i>		<i>Well survey</i>
(2)				
(3)				
B. TYPE OF MONITORING (1)				
(2)				
C. TYPE OF SAMPLING (1)				
(2)				

III. INVESTIGATIVE ACTIVITY		DELETED and PART B-PROPOSED INVESTIGATIVE ACTIVITY (Continued)	
d. TYPE OF LAB ANALYSIS			
(1)			
(2)			
e. OTHER (specify)			
(1)			
(2)			
c. ELABORATE ON ANY OF THE INFORMATION PROVIDED IN PART B (on front & above) AS NEEDED TO IDENTIFY ADDITIONAL INVESTIGATIVE WORK.			
D. ESTIMATED MANHOURS BY ACTION AGENCY			
1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES	1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES
a. EPA		b. STATE	
c. EPA CONTRACTOR		d. OTHER (specify)	
IV. REMEDIAL ACTIONS			
A. SHORT TERM/EMERGENCY STRATEGY (On Site & Off-Site): List all emergency actions needed to bring site under immediate control, e.g., restrict access, provide alternate water supply, etc. See instructions for a list of Key Words for each of the actions to be used in the space below.			
1. ACTION	2. EST. START DATE (mo, day, & yr)	3. EST. END DATE (mo, day, & yr)	4. ACTION AGENCY (EPA, State, Private Party)
			5. ESTIMATED COST
			\$
			\$
			\$
			\$
			\$
			\$
			\$
			\$
B. LONG TERM STRATEGY (On Site & Off-Site): List all long term solutions, e.g., excavation, removal, ground water monitoring wells, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.			
1. ACTION	2. EST. START DATE (mo, day, & yr)	3. EST. END DATE (mo, day, & yr)	4. ACTION AGENCY (EPA, State, Private Party)
			5. ESTIMATED COST
			\$
			\$
			\$
			\$
			\$
			\$
			\$
			\$
C. ESTIMATED MANHOURS AND COST BY ACTION AGENCY			
1. ACTION AGENCY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES	1. ACTION AGENCY
a. EPA			b. STATE
c. PRIVATE PARTIES			d. OTHER (specify)

## 1.

Priority: ☐ High ☐ Medium ☒ Low ☐ None

#### 4. ADDITIONAL COMMENTS (ONGOING & FINAL)

[illegible]



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
AL 0980559470

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) Jim Walter Resources Flat Top Nebo Mine		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Route 1			
03 CITY Graysville	04 STATE AL	05 ZIP CODE 35444	06 COUNTY Jefferson	07 COUNTY CODE 073	08 CONG DIST 06
09 COORDINATES LATITUDE 33 40 00.00		LONGITUDE 087 01 23.00			
10 DIRECTIONS TO SITE (Starting from nearest public road) From int. of U.S. Hwy 78 & Hwy 12 in Graysville, take Hwy 12 (Northwest) approx. 3 miles to Flat Top (Nebo Mine).					

III. RESPONSIBLE PARTIES

01 OWNER (If known) Jim Walter Resources Inc. - Mining Div.		02 STREET (Business, mailing, residential) Hwy 216, P.O. Box 113			
03 CITY Brookwood	04 STATE AL	05 ZIP CODE 35444	06 TELEPHONE NUMBER 205 254-7092		
07 OPERATOR (If known and different from owner) Same as above		08 STREET (Business, mailing, residential)			
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER		
13 TYPE OF OWNERSHIP (Check one) <input checked="" type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					
14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ MONTH DAY YEAR <input checked="" type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: 7/13/81 MONTH DAY YEAR <input type="checkbox"/> C. NONE					

IV. CHARACTERIZATION OF POTENTIAL HAZARD

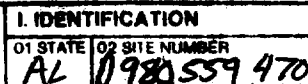
01 ON SITE INSPECTION <input type="checkbox"/> YES DATE _____ MONTH DAY YEAR <input checked="" type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____			
02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION 1890's   Present BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN			
04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED CERCLA notification for over 55 gal. of solvent/oil residues in cans & spillage over the life of the mine. Empty cans are mixed in waste pile with mining overburden.					
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION This mine is presently idle, but runoff is still regulated by NPDES permit. Only hazardous waste potentially identified is solvent film in empty cans buried in overburden.					

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incentives) <input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input checked="" type="checkbox"/> C. LOW (Inspection on time available basis) <input type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--

VI. INFORMATION AVAILABLE FROM

01 CONTACT Steve Maurer SR	02 OF (Agency Organization) ADEM	03 TELEPHONE NUMBER (205) 271-7728			
04 PERSON RESPONSIBLE FOR ASSESSMENT Paul J. Bierstine, P.E.	05 AGENCY	06 ORGANIZATION EPS	07 TELEPHONE NUMBER (601) 922-8242	08 DATE 9/12/84 MONTH DAY YEAR	



(SPEC/V)

## NO OF DRUMS

<input type="checkbox"/> A. TOXIC	<input type="checkbox"/> E. SOLUBLE	<input type="checkbox"/> I. HIGHLY VOLATILE
<input type="checkbox"/> B. CORROSIVE	<input type="checkbox"/> F. INFECTIOUS	<input type="checkbox"/> J. EXPLOSIVE
<input type="checkbox"/> C. RADIOACTIVE	<input type="checkbox"/> G. FLAMMABLE	<input type="checkbox"/> K. REACTIVE
<input type="checkbox"/> D. PERSISTENT	<input type="checkbox"/> H. IGNITABLE	<input type="checkbox"/> L. INCOMPATIBLE
		<input type="checkbox"/> M. NOT APPLICABLE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

[illegible]

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

- ADEM files (Haz. Waste (Canada) & NPDES file)
- Telecon w/ Winston McGill, Central Mining Office, JWR.





**POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT**  
**PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS**

**I. IDENTIFICATION**

01 STATE 02 SITE NUMBER

**II. HAZARDOUS CONDITIONS AND INCIDENTS** (Continued)

01 ☐ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (Include name(s) of species)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills/runoff/standing liquids/leaking drums)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

**IV. COMMENTS**

**V. SOURCES OF INFORMATION** (Cite specific references, e. g., state files, sample analysis, reports)



**POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT**

**PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS**

**I. IDENTIFICATION**

01 STATE 02 SITE NUMBER

**II. HAZARDOUS CONDITIONS AND INCIDENTS**

01 ☐ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: \_\_\_\_\_  
(Acres)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED

01 ☐ I. POPULATION EXPOSURE/INJURY

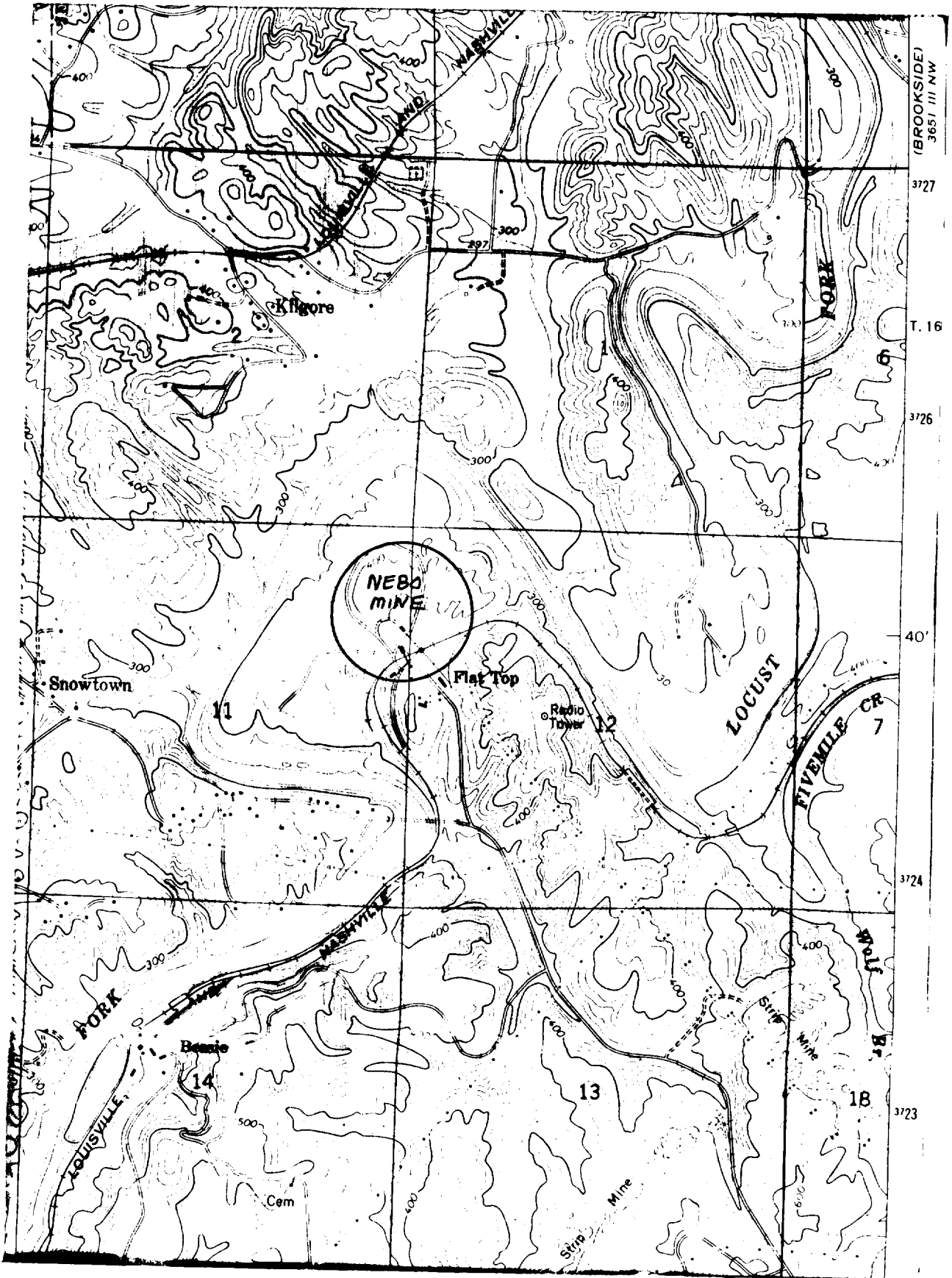
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

04 NARRATIVE DESCRIPTION

☐ POTENTIAL

☐ ALLEGED



U.S.G.S. 7½ MIN. SERIES  
Dora, ALABAMA



RECORD OF PHONE CONVERSATION

TO: Mr. Winston McGill  
Jim Walter Resources, Inc.  
Central Mining Office  
Brookwood, AL  
205/556-6000

FROM: Jennifer Scott-Simpson, <sup>JSS</sup>E&E

cc. Joel Veater, EPA

REFERENCE: TDD # F4-8204-10

DATE: 5-14-82

I explained to Mr. McGill that I had been tasked by EPA to gather more specific information on their CERCLA notification sites in Alabama. Mr. McGill stated that the person responsible for filing these six sites with EPA no longer worked with Jim Walter Resources, Inc. Therefore, he would need to review the information included on the forms before he could offer any comments on the sites. Mr. McGill also requested a written explanation of the types of information that I was seeking. I explained that I would have to confer with EPA before I sent him a letter and that I would be in touch with him again later.

6-11-82

I told Mr. McGill that a letter to him had been drafted but due to Region IV's investigative priorities, the project had been temporarily placed on hold. Mr. McGill responded positively and agreed that perhaps we would talk again sometime in the future.

TENTATIVE HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
EPS FORM 5012-I  
EPS ANALYST/REVIEWER CHECKLIST

Site No. ALO 980 559 470  
Site Name \_\_\_\_\_

Instructions: To be used in conjunction with EPA Form 2070-12 (7-81). Attach on inside front of site folder. Initial and date for all assessment entries under appropriate part/subpart as completed. Initial/date in black for final assessment; in red for higher level (additional) assessment is in order. Follow same procedure for review process.

Review Codes: 1-Toxicology Review; 2-Chemical Review; 3-Ecology Review; 4-Chemical Engineer Review; 5-Geotechnical Review; 6-Project Manager Review; 7-Final Review

1. ANALYST/REVIEW STATUS

Form 2070 Part Number	Analyst/ Date	Review Code 1	Review Code 2	Review Code 3	Review Code 4	Review Code 5	Review Code 6	Review Code 7
1.I.-VI.	<i>RJA</i> <i>NFA 9/12/84</i>						<i>JWN 9/12</i>	<i>JWN 9/12</i>
2.I.								
2.II.								
2.III.								
2.IV.								
2.V.								
2.VI.								
3.I.								
3.II.A								
3.II.B								
3.II.C								
3.II.D								
3.II.E								
3.II.F								
3.II.G								
3.II.H								
3.II.I								
3.II.J								
3.II.K								
3.II.L								
3.II.M								
3.II.N								
3.II.O								
3.II.P								
3.III.								

POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
EPS FORM 3012-II

TELEPHONE LOG SHEET

1. Site Identification:

Site number: ALD 980 559 470  
Site name: Jim Walter Resources Flat Top Neko Mine

2. Interview Data: (Party called)

Name: Mr. Winston McGill  
Position: Environmental Coordinator  
Firm: Jim Walter Resources Central Mining office  
Address: Hwy-26 P.O. Box 113  
Brookwood, AL 35444  
Telephone No.: (205) 254-7052

3. EPS Analyst Data:

Name: Paul J. Bierstine  
Purpose of call: Verify data on CERCLA notification  
Form 2070-12 (7-81) P.N. Part 1  
Date of call: 9/12/84

4. Interview Narrative Summary:

Mr. McGill stated that this mine  
was presently idle, subject to startup when economic  
conditions improve. This mine has been worked since  
before the turn of the century. He did not know  
if the CERCLA notification was accurate regarding  
the amount of solvent residues present since  
no records exist regarding this disposal

5. Disposition/Comments:

6. Comments: Any additional sites used by this company?

Location: \_\_\_\_\_  
Dates of use: \_\_\_\_\_  
Description of waste: \_\_\_\_\_  
Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
EPS FORM 3012-III

INDUSTRIAL NARRATIVE SHEET

1. Site Identification:

Site number: ALD980559470

Site name: Jim Walter Resources Flat Top Nebo Mine

Site county: Jefferson

2. Industrial Narrative Summary:

Company Name: Jim Walter Resources - Control Mining Office

Address: Hwy 216, P. O. Box 113  
Brookwood, AL 35444

Telephone No.: 205/254-7042

Contact: Mr. Winston McGill

Discussion: This site is an underground coal mine, presently idle, which has a CERCLA 103 (c) notification for over 55 gallons of solvents/oils in the form of residues in empty cans and spillage. Empty cans are buried in the mining overburden waste pile. Runoff from site is regulated by NPDES permit. Since this mine has operated since before 1900 and ponds are nonexistent, this mine could be investigated on a low priority basis as probably representative of all coal mines in this area. Very little information was developed regarding realistic disposal amounts and types of solvents used.

3. Disposition:

Priority for inspection in low.

4. Comments:

ENVIRONMENTAL PROTECTION SYSTEMS, INC.  
Alabama RCRA 3012 Site Ranking Scheme  
EPS Form 3012-V

Site Name Fkt Top Nebo mine  
Site Number ALD980559470

Preliminary Assessment Ranking Scheme to Determine Which Sites Merit Further Action.

(Select one answer for each of the following seven questions)

1. Are Hazardous Substances Present?

- A. Confirmed on site!
- B. Suspected at site!
- C. It is unknown!
- D. No hazardous substances
- E. RCRA facility only!

10 points	_____
5 points	_____ ✓
2 points	_____
0 points	_____
0 points	_____

2. Is There a Pollution Dispersal Pathway?

- A. Direct to surface and/or groundwater.
- B. Indirect to surface and/or groundwater.
- C. Suspected to surface and/or groundwater.
- D. Not known for sure.
- E. No pathway.

5 points	_____
4 points	_____
3 points	_____
2 points	_____ ✓
0 points	_____

3. Characteristics of Human Population?

- A. High density.
- B. Medium density.
- C. Low density.
- D. No population.

5 points	_____
4 points	_____
3 points	_____
2 points	_____ ✓

4. Characteristics of Natural Environment?

- A. Critical habitat including endangered species, etc.
- B. Sensitive habitat.
- C. Common less sensitive habitat.

5 points	_____
3 points	_____
2 points	_____ ✓

5. How is Human Population Affected By Site?

- A. Public utility of drinking water from site.
- B. Direct public access to site.
- C. Public access to affected surface water.
- D. Only potential for human population contact.
- E. Low or no potential for contact.

5 points	_____
4 points	_____
3 points	_____
2 points	_____ ✓
1 point	_____

6. Facility Management Practices at Site?

- A. Site actively supervised and managed currently with monitoring reports and other permit and report requirements.
- B. Site inadequately managed records not up-to-date.

1 point	_____ ✓
3 points	_____



C. Site not currently managed or regulated.

4 points  
5 points

D. Abandon site.

7. Potential Responsible Parties for Site Operations?

A. Controlling party identified and accepts responsibility for site.

1 point ✓

B. Suspected controlling party identified but does not accept responsibility for site.

4 points  
5 points

C. No responsible party available.

Ranking Score =

$$\frac{5}{\#1} \times \left[ \frac{2}{\#2} + \frac{2}{\#4} + \left( \frac{2}{\#3} \times \frac{2}{\#5} \right) + \frac{1}{\#6} + \frac{1}{\#7} \right]$$

TABLE 1. Ranking Assessment

NUMERICAL RANGE

PRIORITY ASSESSMENT

0-50  
50-150  
150-300  
300-450

NONE  
LOW  
MEDIUM  
HIGH

Ranking Score: 50

Priority Assessment: LOW

**Jim Walter resources, inc.**  
MINING DIVISION

JULY 8, 1981

Environmental Protection Agency  
U. S. EPA Region 4  
Sites Notification  
Atlanta, GA 30308

SUBJECT: SUPERFUND NOTIFICATION

Dear Sirs:

Through further consideration and interpretation of the regulation concerning Hazardous Substances Notification, we are reporting that we may have disposed of a total greater than 55 gallons of solvents and/or oils over the life of the plant operation. This disposal can only be attributed to disposal into land fills of cans with residues and incidental spillages of these materials. No harmful effects to the environment are expected.

Sincerely,

*Randall Long*

Randall Long  
Resident Engineer

RL/pa

cc: Mr. J. Coleman  
Mr. C. Pierce  
Mr. B. Pollard  
Mr. L. Colburn  
Mr. W. McGill  
Mr. K. Branton

## EPA Notification of Hazardous Waste Site

United States  
Environmental Protection  
Agency  
Washington DC 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

810713

ALS000001194

**A Person Required to Notify:**

Enter the name and address of the person or organization required to notify.

Name Jim Walter Resources, Inc.—Mining Division  
Street Highway 216, P. O. Box 133  
City Brookwood State AL Zip Code 35444

**B Site Location:**

Enter the common name (if known) and actual location of the site.

Name of Site Flat Top/Nebo Mine  
Street Route 1  
City Graysville County Jefferson State AL Zip Code 35073

**C Person to Contact:**

Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title) Long, Randall Resident Engineer  
Phone 254-7042

**D Dates of Waste Handling:**

Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year) \_\_\_\_\_ To (Year) \_\_\_\_\_

**E Waste Type: Choose the option you prefer to complete**

**Option 1:** Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

**General Type of Waste:**  
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☒ Organics
2. ☐ Inorganics
3. ☒ Solvents
4. ☐ Pesticides
5. ☐ Heavy metals
6. ☐ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☐ Other (Specify) \_\_\_\_\_

**Source of Waste:**  
Place an X in the appropriate boxes.

1. ☒ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary Refuse
15. ☐ Photofinish
16. ☐ Lab Hospital
17. ☐ Unknown
18. ☐ Other (Specify) \_\_\_\_\_

**Option 2:** This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

**Specific Type of Waste:**  
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.




RECEIVED  
EPA/REGION IV  
JUL 13 1 47 PM '81  
ENFORCEMENT  
DIVISION

000171

## Notification of Hazardous Waste Site

## Side Two

F Waste Quantity	Facility Type	Total Facility Waste Amount
Place an X in the appropriate boxes to indicate the facility types found at the site.	1. <input type="checkbox"/> Piles	cubic feet _____
In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.	2. <input type="checkbox"/> Land Treatment	gallons _____
In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.	3. <input type="checkbox"/> Landfill	Total Facility Area
	4. <input type="checkbox"/> Tanks	square feet _____
	5. <input type="checkbox"/> Impoundment	acres <u>ONE HALF</u>
	6. <input type="checkbox"/> Underground Injection	
	7. <input type="checkbox"/> Drums, Above Ground	
	8. <input type="checkbox"/> Drums, Below Ground	
	9. <input type="checkbox"/> Other (Specify) _____	

## G Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☐ Suspected ☐ Likely ☒ None

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so.

## H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

## I Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

## J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other"

Name Randall Long

Street \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip Code \_\_\_\_\_

Signature Randall Long

Date July 27, 1981

- ☐ Owner, Present  
☐ Owner, Past  
☐ Transporter  
☒ Operator, Present  
☐ Operator, Past  
☐ Other



POTENTIAL HAZARDOUS WASTE SITE  
IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION SITE NUMBER (to be assigned by HQ)

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Force (EN-335), 401 M St., SW, Washington, DC 20460.

ALD980559470 JEFFERSON 1194  
WALTER, JIM RESOURCES/FLAT TOP/NEBO MIN  
ROUTE 1  
GRAYSVILLE AL 35073  
LONG, RANDALL, RES ENGR 2052547042

LOCATION

STREET (or other identifier)

STATE

E. ZIP CODE

F. COUNTY NAME

2. TELEPHONE NUMBER

H. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☐ 5. PRIVATE ☐ 6. UNKNOWN

"103-C NOTIFICATION" DATE: 810713  
DAN COOPER OR BUDDY COX  
PHONE: 205-832-6728

K. DATE IDENTIFIED  
(mo., day, & yr.)

2. TELEPHONE NUMBER

II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM

☐ 1. HIGH ☐ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION

☐ 1. NO ACTION NEEDED (no hazard)

☐ 2. IMMEDIATE SITE INSPECTION NEEDED  
a. TENTATIVELY SCHEDULED FOR:

☐ 3. SITE INSPECTION NEEDED  
a. TENTATIVELY SCHEDULED FOR:

b. WILL BE PERFORMED BY:

b. WILL BE PERFORMED BY:

☐ 4. SITE INSPECTION NEEDED (low priority)

C. PREPARER INFORMATION

1. NAME

2. TELEPHONE NUMBER

3. DATE (mo., day, & yr.)

III. SITE INFORMATION

A. SITE STATUS

☐ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)

☐ 2. INACTIVE (Those sites which no longer receive wastes.)

☐ 3. OTHER (specify):  
(Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?

☐ 1. NO

☐ 2. YES (specify generator's four-digit SIC Code):

C. AREA OF SITE (in acres)

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES

1. LATITUDE (deg.-min.-sec.)

2. LONGITUDE (deg.-min.-sec.)

E. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO

☐ 2. YES (specify):

## IV. CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

<input checked="" type="checkbox"/> A. TRANSPORTER	<input checked="" type="checkbox"/> B. STORER	<input checked="" type="checkbox"/> C. TREATER	<input checked="" type="checkbox"/> D. DISPOSER
1. RAIL	1. PILE	1. FILTRATION	1. LANDFILL
2. SHIP	2. SURFACE IMPOUNDMENT	2. INCINERATION	2. LANDFARM
3. BARGE	3. DRUMS	3. VOLUME REDUCTION	3. OPEN DUMP
4. TRUCK	4. TANK, ABOVE GROUND	4. RECYCLING/RECOVERY	4. SURFACE IMPOUNDMENT
5. PIPELINE	5. TANK, BELOW GROUND	5. CHEM./PHYS. TREATMENT	5. MIDNIGHT DUMPING
6. OTHER (specify):	6. OTHER (specify):	6. BIOLOGICAL TREATMENT	6. INCINERATION
		7. WASTE OIL REPROCESSING	7. UNDERGROUND INJECTION
		8. SOLVENT RECOVERY	8. OTHER (specify):
		9. OTHER (specify):	

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

## V. WASTE RELATED INFORMATION

## A. WASTE TYPE

☐ 1. UNKNOWN    ☐ 2. LIQUID    ☐ 3. SOLID    ☐ 4. SLUDGE    ☐ 5. GAS

## B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN    ☐ 2. CORROSIVE    ☐ 3. IGNITABLE    ☐ 4. RADIOACTIVE    ☐ 5. HIGHLY VOLATILE  
☐ 6. TOXIC    ☐ 7. REACTIVE    ☐ 8. INERT    ☐ 9. FLAMMABLE
☐ 10. OTHER (specify):

## C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
<input checked="" type="checkbox"/> (1) PAINT, PIGMENTS	<input checked="" type="checkbox"/> (1) OILY WASTES	<input checked="" type="checkbox"/> (1) HALOGENATED SOLVENTS	<input checked="" type="checkbox"/> (1) ACIDS	<input checked="" type="checkbox"/> (1) FLYASH	<input checked="" type="checkbox"/> (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify):	(2) NON-HALOGENATED SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/ MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMELTING WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMELTING WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify):	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify):		

**V. WASTE RELATED INFORMATION (continued)****3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).****4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.****VI. HAZARD DESCRIPTION**

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL				
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify):				

Continued From Front

### VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

- ☐ 1. NPDES PERMIT    ☐ 2. SPCC PLAN    ☐ 3. STATE PERMIT (specify): \_\_\_\_\_  
☐ 4. AIR PERMITS    ☐ 5. LOCAL PERMIT    ☐ 6. RCRA TRANSPORTER  
☐ 7. RCRA STORER    ☐ 8. RCRA TREATER    ☐ 9. RCRA DISPOSER  
☐ 10. OTHER (specify): \_\_\_\_\_

B. IN COMPLIANCE?

- ☐ 1. YES    ☐ 2. NO    ☐ 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): \_\_\_\_\_

### VIII. PAST REGULATORY ACTIONS

- ☐ A. NONE    ☐ B. YES (summarize below)

### IX. INSPECTION ACTIVITY (past or on-going)

- ☐ A. NONE    ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

### X. REMEDIAL ACTIVITY (past or on-going)

- ☐ A. NONE    ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.